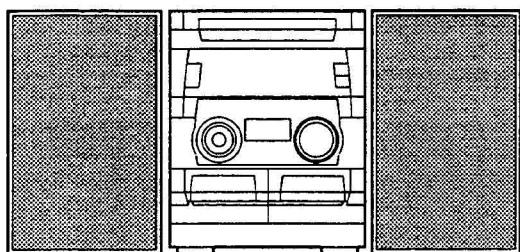


aiwa



NSX-A707 NSX-S707 NSX-S708



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK2 PR4NM
- BASIC CD MECHANISM : 4ZG-1 Z3DSHNM
- TYPE : 707(U,LH), 708LH

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-A707	CX-NA707 (TYPE : U)	SX-NA702	RC - 7AS06
NSX-S707	CX-NS707 (TYPE : LH)	SX-FNS705	
NSX-S708	CX-NS708 (TYPE : LH)	SX-ANS707	

- If requiring information about the CD mechanism, see Service Manual of 4ZG-1, S/M Code No. 09-983-249-3OT.

www.manualscenter.com

S/M Code No. 09-984-250-2FE

SERVICE MANUAL

SPECIFICATIONS

<FM Tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity(IHF)	13.2 dBf
Antenna terminals	75 ohms (unbalanced)

<MW Tuner section>

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 μ V/m
Antenna	Loop antenna

<Amplifier section>

Power output	U : 80 W + 80 W (50 Hz - 20 kHz, T.H.D. less than 1%, 6 ohms) LH : 140 W + 140 W (6 ohms, T.H.D.10%, 1 kHz)
Total harmonic distortion	U : 0.1% (40 W, 1 kHz, 6 ohms, DIN AUDIO) LH : 0.1% (70 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	VIDEO/AUX : 210 mV(adjustable) MD : 210mV (adjustable) MIC1, MIC2 : 1.4mV (10 kohms)
Outputs	U : SUPER WOOFERS: 2.2 V LH : SUPER WOOFERS: 2.6 V LINE OUT: 280 mV SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS: accept speakers of 8 ohms to 16 ohms PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	CrO ₂ tape : 50 Hz - 16000 Hz Normal tape : 50 Hz - 15000 Hz
Recording system	AC bias
Heads	Deck 1 : playback head x 1 Deck 2 : Recording/Playback head x 1/ erase head x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX-NA702 (For NSX-A707)>

Cabinet type	3 way, bass reflex (magnetic shielded type)
Speakers	Woofer : 160 mm (6 ³ / ₈ in.) cone type Tweeter : 60 mm (2 ³ / ₈ in.) ceramic type Super tweeter: 20 mm (1 ³ / ₁₆ in.) ceramic type 6 ohms
Impedance	
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	235 x 324 x 250mm (9 ³ / ₈ X 12 ⁷ / ₈ X 9 ⁷ / ₈ in.)
Weight	3.2 kg (7 lbs 11 oz.)

<Speaker system SX-FNS705 (For NSX-S707)>

Cabinet type	3 way, bass reflex with surround speaker (magnetic shielded type)
Speakers	Woofer : 160 mm cone type Tweeter : 80 mm ceramic type Super tweeter : 20 mm ceramic type Surround speaker : 80 mm cone type Front speaker : 6 ohms Surround speaker : 8 ohms
Impedance	
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	250 x 324 x 275 mm
Weight	3.9 kg

<Speaker system SX-ANS707 (For NSX-S708)>

Cabinet type	4 way, bass reflex with surround speaker (magnetic shielded type)
Speakers	Woofer : 160 mm cone type Mid-range : 80 mm cone type Tweeter : 50 mm cone type Super tweeter: 20 mm ceramic type Surround speaker : 60 mm cone type Front speaker : 6 ohms Surround speaker : 8 ohms
Impedance	
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	250 x 427 x 294 mm
Weight	5.8 kg

<General>

Power requirements	U : 120 V AC, 60 Hz LH : 120 V/220-230 V/240 V AC (switchable), 50/60 Hz
Power consumption	U : 125 W LH : 170 W
Dimensions of main unit	260 x 324 x 348 mm (10 ¹ / ₄ X 12 ⁷ / ₈ X 13 ⁹ / ₁₆ in.)
Weight	U : 7.1 kg (15 lbs 10 oz.) LH : 8.1 kg

• Design and specifications are subject to change without notice.

• The word "BBE"and the "BBE symbol" are trademarks of BBE Sound, Inc.
Under license from BBE Sound, Inc.

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-NF6-902-010	IB, LH (ESP) M<LH>	
1	88-NF6-903-010	IB, U (ESF) M<U>	
2	87-006-225-010	AM LOOP ANT NC2	

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
3	87-A90-064-010		FEEDER-ANT, FM (SHS)
4	87-A90-312-010		PLUG, CONVERSION WTN-1157R1<IH>
5	87-NF6-635-010		RC UNIT, RC-7AS06

NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, the secondary defect can occur.

In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

- ① Remove the AC power cord.
- ② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connector the other end of the lead wire to metal chassis.
- ③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
- ④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
- ⑤ Check that voltage across C101 and C102 has decreased 1 V or less using a multimeter or an oscilloscope.

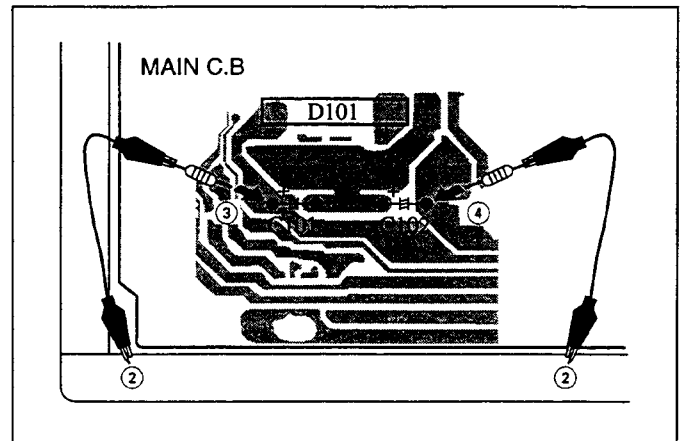


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitor on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.

When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

• Good or no good judgment of the MICROCOMPUTER

- ① Turn on the AC main power.
- ② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
- ③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.

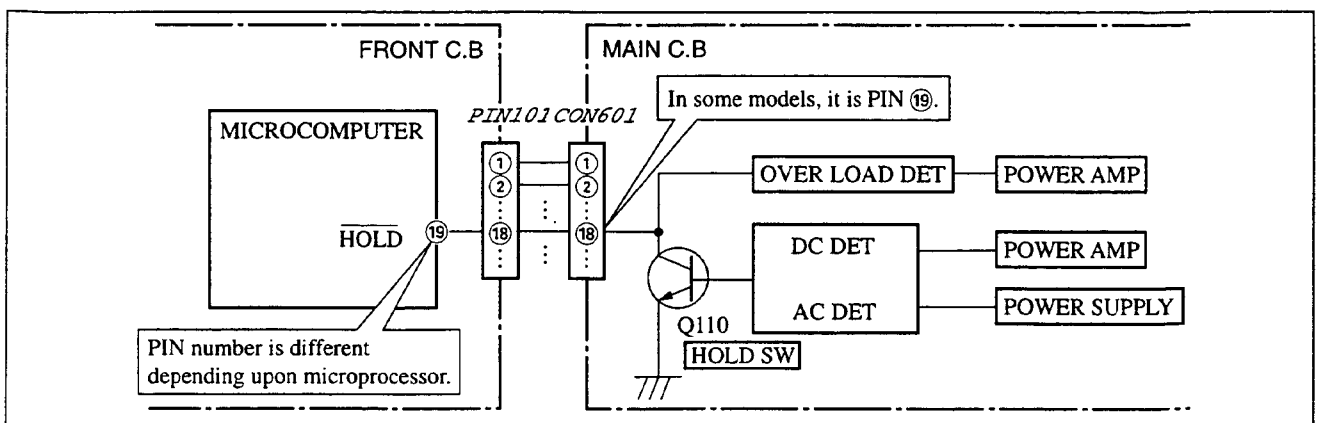


Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.

When the above described phenomenon occurs, it can lead to wrong judgment as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

- ① Remove the AC power cord.

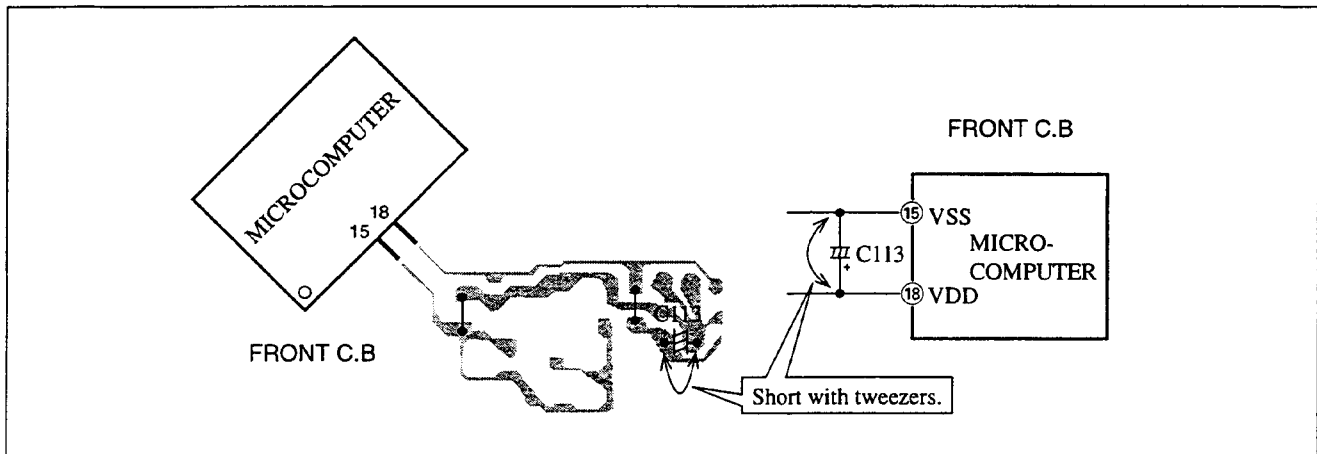


Fig-2-2

- ② Short the both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.
- ③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC				C105	87-012-368-080		C-CAP,S 0.1-50 F
	88-NF5-615-040		C-IC,MSM6654A-521GS-KR1	C106	87-012-368-080		C-CAP,S 0.1-50 F
	88-NF7-690-010		C-IC,LC866560W-5G73	C107	87-012-368-080		C-CAP,S 0.1-50 F
	87-070-083-010		IC,GPIU281X	C108	87-012-368-080		C-CAP,S 0.1-50 F
	87-A20-783-040		C-IC,BA7762AFS	C109	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-083-010		IC,BA3835S	C110	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-804-040		C-IC,NJM2152M	C111	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-017-915-080		IC,BU4094BCF	C112	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-613-040		C-IC,BU9262AFS	C113	87-010-247-080		CAP, ELECT 100-50V
	87-A20-954-040		C-IC,M62445FP-601	C116	87-010-247-080		CAP, ELECT 100-50V
	87-017-888-080		IC,NJM4558MD	C117	87-010-430-080		CAP, ELECT 100-63
	86-NFZ-655-010		IC,LC72131D(Z)	C118	87-010-263-080		CAP, ELECT 100-10V
	87-A20-438-010		IC,LA1837	C119	87-010-260-080		CAP, ELECT 47-25V
	87-020-454-010		IC,DN6851	C120	87-010-403-080		CAP, ELECT 3.3-50V
	87-070-289-040		C-IC,BU2092F	C121	87-012-140-080		CAP 470P
TRANSISTOR				C122	87-010-263-080		CAP, ELECT 100-10V<U>
	87-A30-087-080		C-FET,2SK2158	C123	87-010-247-080		CAP, ELECT 100-50V
	89-213-702-010		TR,2SB1370 (1.8W)	C124	87-010-112-080		CAP, ELECT 100-16V
	87-026-263-080		C-TR,RN1410	C125	87-010-235-080		CAP,E 470-16 SME
	87-A30-071-080		C-TR,RT1N 144C	C151	87-016-520-090		CAP,E 3300-65
	87-026-610-080		TR,ETC3198GR	C152	87-016-520-090		CAP,E 3300-65
	87-A30-076-080		C-TR,2SC3052F	C209	87-010-546-080		CAP, ELECT 0.33-50V
	87-A30-196-080		TR,2SC4115SRS	C210	87-010-546-080		CAP, ELECT 0.33-50V
	87-A30-075-080		C-TR,2SA1235F	C211	87-010-183-080		C-CAP,S 2700P-50 B
	87-026-609-080		TR,KTAL266GR	C212	87-010-183-080		C-CAP,S 2700P-50 B
	87-A30-107-070		C-TR,CMBT5401	C213	87-010-186-080		CAP,CHIP 4700P
	87-A30-190-080		TR,CC5551	C214	87-010-186-080		CAP,CHIP 4700P
	87-A30-097-010		TR,FN 1016	C215	87-010-403-080		CAP, ELECT 3.3-50V
	87-A30-098-010		TR,FP 1016	C216	87-010-403-080		CAP, ELECT 3.3-50V
	87-A30-106-070		C-TR,CMBT5551	C217	87-010-260-080		CAP, ELECT 47-25V
	87-A30-072-080		C-TR,RT1P 144C	C218	87-010-260-080		CAP, ELECT 47-25V
	87-A30-074-080		C-TR,RT1P 141C	C223	87-010-197-080		CAP,CHIP 0.01 DM
	87-026-232-080		C-TR,DTA 144WK	C224	87-010-197-080		CAP,CHIP 0.01 DM
	87-A30-073-080		C-TR,RT1N 141C	C229	87-A10-812-080		C-CAP,S 220P-200 J CH
	87-A30-105-080		C-TR,RT1P 441C	C230	87-A10-812-080		C-CAP,S 220P-200 J CH
	89-112-965-080		TR,2SA1296 (0.75W)	C233	87-010-544-080		CAP, ELECT 0.1-50V
	87-A30-085-070		C-TR,CSA1362GR	C234	87-010-544-080		CAP, ELECT 0.1-50V
	89-327-143-080		TR,2SC2714 (0.1W)	C235	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-026-463-080		TR,2SA933SRS	C237	87-012-368-080		C-CAP,S 0.1-50 F
	87-A30-162-010		FET,2SK2937	C238	87-012-368-080		C-CAP,S 0.1-50 F
	87-026-580-080		C-TR,DTA123JK	C239	87-012-368-080		C-CAP,S 0.1-50 F
DIODE				C240	87-012-368-080		C-CAP,S 0.1-50 F
	87-A40-470-080		DIODE,1SS254	C243	87-010-178-080		CHIP,CAP 1000P
	87-017-654-060		DIODE,GBU6JL 6131<LH>	C244	87-010-178-080		CHIP,CAP 1000P
	87-A40-269-080		C-DIODE,MC2836	C247	87-012-154-080		C-CAP,S 150P-50 CH
	87-A40-509-080		ZENER,MTZJ6.8C	C280	87-010-182-080		C-CAP,S 2200P-50 B
	87-070-136-080		ZENER,MTZJ5.1B	C298	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A40-270-080		C-DIODE,MC2838	C301	87-010-318-080		C-CAP,S 47P-50 CH
	87-070-274-080		DIODE,1N4003 SEM	C302	87-010-318-080		C-CAP,S 47P-50 CH
	87-A40-341-080		ZENER,MTZJ 36 A	C303	87-012-157-080		C-CAP,S 330P-50 CH
	87-A40-004-080		ZENER,MTZJ16A	C304	87-012-157-080		C-CAP,S 330P-50 CH
	87-A40-488-080		DIODE,1SS244	C305	87-012-145-080		CAP, CHIP S 270P CH
	87-A40-345-080		ZENER,MTZJ10C	C306	87-012-145-080		CAP, CHIP S 270P CH
	87-A40-184-090		DIODE,RF34	C307	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A40-002-080		ZENER,MTZJ5.1C	C309	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A40-438-080		ZENER,MTZJ4.7A	C310	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A40-234-080		ZENER,MTZJ5.6A	C311	87-010-198-080		CAP, CHIP 0.022
	87-A40-115-060		DIODE,RS603M	C312	87-010-198-080		CAP, CHIP 0.022
	87-017-931-080		ZENER,MTZJ5.6B	C313	87-010-178-080		CHIP CAP 1000P
MAIN C.B				C314	87-010-178-080		CHIP CAP 1000P
C101	87-016-657-090		CAP,E 3300-71<LH>	C315	87-010-178-080		CHIP CAP 1000P
C102	87-016-657-090		CAP,E 3300-71<LH>	C316	87-010-178-080		CHIP CAP 1000P
C103	87-016-658-090		CAP,E 4700-35 SMG	C321	87-016-492-080		C-CAP,S 0.33-16 FZ
C104	87-016-658-090		CAP,E 4700-35 SMG	C322	87-016-492-080		C-CAP,S 0.33-16 FZ
				C324	87-010-260-080		CAP, ELECT 47-25V
				C325	87-010-370-080		CAP,E 330-6.3 SME
				C327	87-010-404-080		CAP, ELECT 4.7-50V
				C328	87-010-404-080		CAP, ELECT 4.7-50V
				C332	87-010-196-080		CHIP CAPACITOR,0.1-25

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylitävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstråling, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

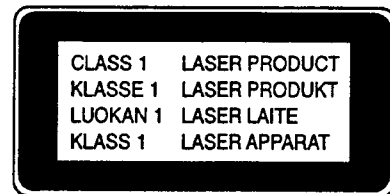
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

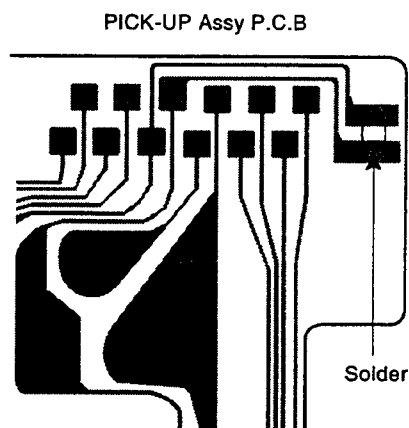


Precaution to replace Optical block

(KSS – 213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in right figure.



REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C335	87-010-401-080		CAP, ELECT 1-50V	C712	87-010-196-080		CHIP CAPACITOR, 0.1-25
C336	87-010-401-080		CAP, ELECT 1-50V	C713	87-010-197-080		CAP, CHIP 0.01 DM
C337	87-010-196-080		CHIP CAPACITOR, 0.1-25	C714	87-010-197-080		CAP, CHIP 0.01 DM
C339	87-010-196-080		CHIP CAPACITOR, 0.1-25	C721	87-010-312-080		C-CAP, S 15P-50 CH
C340	87-010-196-080		CHIP CAPACITOR, 0.1-25	C722	87-010-312-080		C-CAP, S 15P-50 CH
C351	87-012-140-080		CAP 470P	C723	87-010-178-080		CHIP CAP 1000P
C352	87-012-140-080		CAP 470P	C725	87-010-178-080		CHIP CAP 1000P
C354	87-010-175-080		CAP 560P	C727	87-010-196-080		CHIP CAPACITOR, 0.1-25
C355	87-012-349-080		C-CAP, S 1000P-50 CH	C728	87-010-248-080		CAP, ELECT 220-10V
C356	87-010-260-080		CAP, ELECT 47-25V	C755	87-010-197-080		CAP, CHIP 0.01 DM
C357	87-010-197-080		CAP, CHIP 0.01 DM	C756	87-010-197-080		CAP, CHIP 0.01 DM
C358	87-010-183-080		C-CAP, S 2700P-50 B	C757	87-010-318-080		C-CAP, S 47P-50 CH
C359	87-010-183-080		C-CAP, S 2700P-50 B	C758	87-010-149-080		C-CAP, S 5P-50 CH
C360	87-010-183-080		C-CAP, S 2700P-50 B	C759	87-012-156-080		C-CAP, S 220P-50 CH
C370	87-010-196-080		CHIP CAPACITOR, 0.1-25	C760	87-012-156-080		C-CAP, S 220P-50 CH
C373	87-016-083-080		C-CAP, S 0.15-16 RK	C761	87-010-196-080		CHIP CAPACITOR, 0.1-25
C374	87-016-083-080		C-CAP, S 0.15-16 RK	C762	87-010-197-080		CAP, CHIP 0.01 DM
C378	87-010-196-080		CHIP CAPACITOR, 0.1-25	C763	87-010-194-080		CAP, CHIP 0.047
C379	87-010-382-080		CAP, ELECT 22-25V	C764	87-010-319-080		C-CAP, S 56P-50 CH
C380	87-010-382-080		CAP, ELECT 22-25V	C765	87-010-197-080		CAP, CHIP 0.01 DM
C381	87-010-197-080		CAP, CHIP 0.01 DM	C766	87-010-197-080		CAP, CHIP 0.01 DM
C382	87-010-312-080		C-CAP, S 15P-50 CH	C767	87-010-405-080		CAP, ELECT 10-50V
C383	87-010-197-080		CAP, CHIP 0.01 DM	C768	87-010-197-080		CAP, CHIP 0.01 DM
C384	87-010-402-080		CAP, ELECT 2.2-50V	C769	87-010-408-080		CAP, ELECT 47-50V
C386	87-010-196-080		CHIP CAPACITOR, 0.1-25	C770	87-015-821-080		C-CAP 0.047
C387	87-012-145-080		CAP, CHIP S 270P CH	C771	87-010-407-080		CAP, ELECT 33-50V
C401	87-010-405-080		CAP, ELECT 10-50V	C772	87-010-194-080		CAP, CHIP 0.047
C402	87-010-405-080		CAP, ELECT 10-50V	C773	87-010-196-080		CHIP CAPACITOR, 0.1-25
C403	87-010-182-080		C-CAP, S 2200P-50 B	C774	87-010-263-080		CAP, ELECT 100-10V
C404	87-010-182-080		C-CAP, S 2200P-50 B	C775	87-010-404-080		CAP, ELECT 4.7-50V
C405	87-010-193-080		CHIP CAPACITOR, 0.033	C776	87-010-197-080		CAP, CHIP 0.01 DM
C406	87-010-193-080		CHIP CAPACITOR, 0.033	C777	87-010-400-080		CAP, ELECT 0.47-50V
C407	87-010-405-080		CAP, ELECT 10-50V	C778	87-010-401-080		CAP, ELECT 1-50V
C408	87-010-405-080		CAP, ELECT 10-50V	C779	87-010-401-080		CAP, ELECT 1-50V
C409	87-010-380-080		CAP, ELECT 47-16V	C780	87-010-196-080		CHIP CAPACITOR, 0.1-25
C410	87-010-380-080		CAP, ELECT 47-16V	C781	87-010-405-080		CAP, ELECT 10-50V
C411	87-010-405-080		CAP, ELECT 10-50V	C782	87-010-405-080		CAP, ELECT 10-50V
C412	87-010-112-080		CAP, ELECT 100-16V	C783	87-015-819-080		CAPACITOR, 0.01
C415	87-010-184-080		CHIP CAPACITOR 3300P (K)	C784	87-010-197-080		CAP, CHIP 0.01 DM
C416	87-010-184-080		CHIP CAPACITOR 3300P (K)	C785	87-010-403-080		CAP, ELECT 3.3-50V
C457	87-010-400-080		CAP, ELECT 0.47-50V	C786	87-010-403-080		CAP, ELECT 3.3-50V
C458	87-010-400-080		CAP, ELECT 0.47-50V	C787	87-010-181-080		CAP, CHIP S 1800P
C516	87-010-196-080		CHIP CAPACITOR, 0.1-25	C788	87-010-181-080		CAP, CHIP S 1800P
C601	87-010-180-080		C-CER 1500P	C789	87-010-179-080		CAP, CHIP S B1200P
C602	87-010-180-080		C-CER 1500P	C790	87-010-179-080		CAP, CHIP S B1200P
C613	87-016-081-080		C-CAP, S 0.1-16 RK	C791	87-010-405-080		CAP, ELECT 10-50V
C614	87-016-081-080		C-CAP, S 0.1-16 RK	C793	87-010-177-080		C-CAP, S 820P-50 SL
C619	87-010-185-080		C-CAP, S 3900P-50 B	C794	87-010-406-080		CAP, ELECT 22-50
C620	87-010-185-080		C-CAP, S 3900P-50 B	C795	87-010-596-080		CAP, S 0.047-16
C621	87-010-401-080		CAP, ELECT 1-50V	C796	87-010-403-080		CAP, ELECT 3.3-50V
C622	87-010-401-080		CAP, ELECT 1-50V	C799	87-010-194-080		CAP, CHIP 0.047
C625	87-010-405-080		CAP, ELECT 10-50V	C812	87-010-197-080		CAP, CHIP 0.01 DM
C626	87-010-405-080		CAP, ELECT 10-50V	C814	87-010-197-080		CAP, CHIP 0.01 DM
C629	87-010-405-080		CAP, ELECT 10-50V	C820	87-010-408-080		CAP, ELECT 47-50V
C630	87-010-213-080		CAP, CHIP 0.015-25 KB GRM	C821	87-010-197-080		CAP, CHIP 0.01 DM
C631	87-010-992-080		CHIP-CAP, S 0.047-25B	C822	87-010-197-080		CAP, CHIP 0.01 DM
C632	87-010-263-080		CAP, ELECT 100-10V	C823	87-010-197-080		CAP, CHIP 0.01 DM
C633	87-010-263-080		CAP, ELECT 100-10V	C828	87-010-196-080		CHIP CAPACITOR, 0.1-25
C634	87-010-196-080		CHIP CAPACITOR, 0.1-25	C829	87-010-196-080		CHIP CAPACITOR, 0.1-25
C635	87-010-196-080		CHIP CAPACITOR, 0.1-25	C959	87-010-196-080		CHIP CAPACITOR, 0.1-25
C636	87-010-194-080		CAP, CHIP 0.047	C960	87-010-196-080		CHIP CAPACITOR, 0.1-25
C637	87-010-183-080		C-CAP, S 2700P-50 B	C961	87-010-152-080		C-CAP, S 8P-50 CH
C641	87-010-196-080		CHIP CAPACITOR, 0.1-25	CF801	87-008-261-010		FILTER, SPE10.7MA5-A
C667	87-010-196-080		CHIP CAPACITOR, 0.1-25	CF802	87-008-261-010		FILTER, SPE10.7MA5-A
C701	87-010-381-080		CAP, ELECT 330-16V	FB601	87-A50-190-080		C-COIL, S BLM21A102S
C702	87-010-404-080		CAP, ELECT 4.7-50V	FC602	88-906-241-110		FF-CABLE, 6P 1.25
C703	87-010-197-080		CAP, CHIP 0.01 DM	FFE801	A8-8ZA-190-030		8ZA-1 FEUNM
C704	87-010-197-080		CAP, CHIP 0.01 DM	J201	87-A60-488-010		JACK, DIA6.3 BLK ST W/SW KM16AT
C709	87-010-322-080		C-CAP, S 100P-50 CH	J202	87-A60-547-010		JACK, PIN 4P R/W/B
C711	87-010-263-080		CAP, ELECT 100-10V	J203	87-033-240-010		TERMINAL, SP 4P32SV1-05

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
J601	87-A60-402-010		JACK, PIN 6P R/W HSP-246V30	C505	87-010-180-080		C-CER 1500P
J801	87-033-239-010		TERMINAL, HSP-154V-2	C506	87-010-213-080		C-CAP, S 0.015-50 B
L201	87-003-383-010		COIL, 1UH-S	C507	87-010-213-080		C-CAP, S 0.015-50 B
L202	87-003-383-010		COIL, 1UH-S	C508	87-010-197-080		CAP, CHIP 0.01 DM
L301	87-A50-049-010		COIL, TRAP 85K(COI)	C509	87-010-181-080		CAP, CHIP S 1800P
L302	87-A50-049-010		COIL, TRAP 85K(COI)	C510	87-010-196-080		CHIP CAPACITOR, 0.1-25
L351	87-007-342-010		COIL, OSC 85K BIAS	C511	87-010-544-040		CAP, E 0.1-50 SME
L771	87-A50-266-010		COIL, FM DET-2N(TOK)	C512	87-010-374-040		CAP, E 47-10
L772	87-A90-733-010		FLTR, PCFAZH-450 (TOK)	C513	87-010-401-040		CAP, E 1-50 SME
L781	87-005-847-080		COIL, 2.2UH(CECS)	C514	87-010-401-040		CAP, E 1-50 SME
L832	86-NFZ-694-080		COIL, 2.2UH K CECS	C515	87-010-183-080		C-CAP, S 2700P-50 B
L981	87-NF4-650-010		COIL, AM PACK 4N(TOK)	C516	87-010-183-080		C-CAP, S 2700P-50 B
R123	87-022-200-080		RESISTOR, METAL 0.56 1W<U>	C518	87-010-196-080		CHIP CAPACITOR, 0.1-25
R237	87-A00-262-080		RES, M/F 0.15-2W J	C519	87-010-263-040		CAP, E 100-10
R238	87-A00-262-080		RES, M/F 0.15-2W J	C523	87-012-141-080		CHIP-CAPACITOR, 0.22-16F
R239	87-A00-262-080		RES, M/F 0.15-2W J	C601	87-010-405-040		CAP, E 10-50
R240	87-A00-262-080		RES, M/F 0.15-2W J	C602	87-010-186-080		CAP, CHIP 4700P
RY101	87-045-389-010		RELAY, 12V OSA-SS-212DM5	C603	87-010-405-040		CAP, E 10-50
RY201	87-A90-713-010		RELAY, 12V DQ12D1	C604	87-010-406-040		CAP, E 22-50 SME
SFR351	87-A90-433-080		SFR, 50K H NVZ6TLTA	C605	87-010-196-080		CHIP CAPACITOR, 0.1-25
SFR352	87-A90-433-080		SFR, 50K H NVZ6TLTA	C606	87-010-322-080		C-CAP, S 100P-50 CH
W104	85-NF5-628-010		F-CABLE 7P-2.5	C607	87-010-321-080		CHIP CAPACITOR, 82P(J)
X721	87-A70-061-010		VIB, XTAL 4.500MHZ CSA-309	C608	87-010-196-080		CHIP CAPACITOR, 0.1-25
				C609	87-010-545-040		CAP, E 0.22-50 SME
				C611	87-010-177-080		C-CAP, S 820P-50 SL
FRONT C.B				C614	87-010-248-040		CAP, E 220-10 SME
C101	87-010-075-040		CAP, E 10-16 5L	C651	87-010-401-040		CAP, E 1-50 SME
C102	87-010-196-080		CHIP CAPACITOR, 0.1-25	C652	87-010-196-080		CHIP CAPACITOR, 0.1-25
C103	87-010-196-080		CHIP CAPACITOR, 0.1-25	C653	87-010-196-080		CHIP CAPACITOR, 0.1-25
C104	87-010-494-040		CAP, E 1-50 GAS	C901	87-010-263-040		CAP, E 100-10
C105	87-010-178-080		CHIP CAP 1000P				
C106	87-A10-189-040		CAP, E 220-10	C902	87-010-196-080		CHIP CAPACITOR, 0.1-25
C107	87-010-197-080		CAP, CHIP 0.01 DM	C903	87-010-313-080		CAP, CHIP 18P
C108	87-010-196-080		CHIP CAPACITOR, 0.1-25	C904	87-012-155-080		C-CAP 180P-50CH
C109	87-010-194-080		CAP, CHIP 0.047	C905	87-010-400-040		CAP, E 0.47-50
C110	87-012-157-080		C-CAP, S 330P-50 CH	FB601	87-008-372-080		FILTER, EMI BL OIRNI
C111	87-010-320-080		CHIP CAP 68P	FC301	88-906-241-110		FF-CABLE, 6P-1.25
C112	87-010-312-080		C-CAP, S 15P-50 CH	FC501	88-915-221-110		FF-CABLE, 15P-1.25 220MM
C113	87-010-316-080		C-CAP, S 33P-50 CH	FC801	85-NF5-618-010		CABLE, FFC 13P-1.25
C114	87-010-182-080		C-CAP, S 2200P-50 B	FL201	88-NF6-611-010		FL, BJ610GK
C115	87-010-182-080		C-CAP, S 2200P-50 B	J601	87-A60-284-010		JACK, 3.5MO (MSC)
C116	87-010-405-040		CAP, E 10-50	J602	87-A60-284-010		JACK, 3.5MO (MSC)
C117	87-012-157-080		C-CAP, S 330P-50 CH	L501	87-005-212-080		COIL, 220UH
C118	87-010-196-080		CHIP CAPACITOR, 0.1-25	L901	87-007-340-010		COIL, CLOCK 4.19MHZ
C119	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED401	87-070-197-080		LED, SLP7118C-51-S-T1
C120	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED402	87-070-197-080		LED, SLP7118C-51-S-T1
C121	87-010-194-080		CAP, CHIP 0.047	LED403	87-070-197-080		LED, SLP7118C-51-S-T1
C122	87-010-194-080		CAP, CHIP 0.047	LED404	87-070-197-080		LED, SLP7118C-51-S-T1
C125	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED405	87-070-197-080		LED, SLP7118C-51-S-T1
C151	87-010-197-080		CAP, CHIP 0.01 DM	LED406	87-070-197-080		LED, SLP7118C-51-S-T1
C201	87-010-178-080		CHIP CAP 1000P	LED407	87-070-197-080		LED, SLP7118C-51-S-T1
C202	87-010-194-080		CAP, CHIP 0.047	LED408	87-070-197-080		LED, SLP7118C-51-S-T1
C203	87-010-408-040		CAP, E 47-50 SME	LED409	87-070-197-080		LED, SLP7118C-51-S-T1
C204	87-010-404-040		CAP, E 4.7-50 SME	LED410	87-070-197-080		LED, SLP7118C-51-S-T1
C205	87-010-404-040		CAP, E 4.7-50 SME	LED411	87-070-201-080		LED, SLP9118C-51-S-T1
C371	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED412	87-070-201-080		LED, SLP9118C-51-S-T1
C372	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED413	87-070-201-080		LED, SLP9118C-51-S-T1
C373	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED414	87-070-201-080		LED, SLP9118C-51-S-T1
C375	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED415	87-070-201-080		LED, SLP9118C-51-S-T1
C376	87-012-158-080		C-CAP, S 390P-50 CH	LED417	87-070-281-080		LED, SLZ736A-25-S-T1
C377	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED419	87-070-281-080		LED, SLZ736A-25-S-T1
C378	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED421	87-070-281-080		LED, SLZ736A-25-S-T1
C402	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED423	87-070-281-080		LED, SLZ736A-25-S-T1
C404	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED425	87-070-281-080		LED, SLZ736A-25-S-T1
C406	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED427	87-070-281-080		LED, SLZ736A-25-S-T1
C408	87-010-196-080		CHIP CAPACITOR, 0.1-25	LED428	87-A40-446-040		LED, SLP-7131F-81H-S-T1 P-GRN
C501	87-010-319-080		C-CAP, S 56P-50 CH	LED429	87-A40-446-040		LED, SLP-7131F-81H-S-T1 P-GRN
C502	87-010-319-080		C-CAP, S 56P-50 CH	LED430	87-A40-446-040		LED, SLP-7131F-81H-S-T1 P-GRN
C503	87-012-393-080		C-CAP, S 0.22-16 R K	LED431	87-A40-446-040		LED, SLP-7131F-81H-S-T1 P-GRN
C504	87-010-197-080		CAP, CHIP 0.01 DM	LED432	87-A40-446-040		LED, SLP-7131F-81H-S-T1 P-GRN
				LED433	87-A40-446-040		LED, SLP-7131F-81H-S-T1 P-GRN

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
LED434	87-A40-446-040	LED,SLP-7131F-81H-S-T1	P-GRN
LED435	87-A40-446-040	LED,SLP-7131F-81H-S-T1	P-GRN
LED436	87-A40-446-040	LED,SLP-7131F-81H-S-T1	P-GRN
LED437	87-A40-446-040	LED,SLP-7131F-81H-S-T1	P-GRN
LED443	87-070-278-010	LED,SLZ-738A-24-S	
LED445	87-070-290-010	LED,SLZ 936-30-S	
LED446	87-070-278-010	LED,SLZ-738A-24-S	
LED447	87-070-278-010	LED,SLZ-738A-24-S	
LED448	87-070-290-010	LED,SLZ 936-30-S	
LED449	87-070-278-010	LED,SLZ-738A-24-S	
S101	87-A90-792-010	SW,RTRY EC12E12244	ENCORDER
S102	87-A90-535-010	SW,RTRY EC16B24304	
S301	87-A90-095-080	SW,TACT EVQ11G04M	
S302	87-A90-095-080	SW,TACT EVQ11G04M	
S303	87-A90-095-080	SW,TACT EVQ11G04M	
S304	87-A90-095-080	SW,TACT EVQ11G04M	
S305	87-A90-095-080	SW,TACT EVQ11G04M	
S306	87-A90-095-080	SW,TACT EVQ11G04M	
S307	87-A90-095-080	SW,TACT EVQ11G04M	
S308	87-A90-095-080	SW,TACT EVQ11G04M	
S309	87-A90-095-080	SW,TACT EVQ11G04M	
S310	87-A90-095-080	SW,TACT EVQ11G04M	
S311	87-A90-095-080	SW,TACT EVQ11G04M	
S312	87-A90-095-080	SW,TACT EVQ11G04M	
S313	87-A90-095-080	SW,TACT EVQ11G04M	
S321	87-A90-095-080	SW,TACT EVQ11G04M	
S322	87-A90-095-080	SW,TACT EVQ11G04M	
S323	87-A90-095-080	SW,TACT EVQ11G04M	
S324	87-A90-095-080	SW,TACT EVQ11G04M	
S325	87-A90-095-080	SW,TACT EVQ11G04M	
S326	87-A90-095-080	SW,TACT EVQ11G04M	
S327	87-A90-095-080	SW,TACT EVQ11G04M	
S333	87-A90-095-080	SW,TACT EVQ11G04M	
S341	87-A90-095-080	SW,TACT EVQ11G04M	
S342	87-A90-095-080	SW,TACT EVQ11G04M	
S343	87-A90-095-080	SW,TACT EVQ11G04M	
S344	87-A90-095-080	SW,TACT EVQ11G04M	
S345	87-A90-095-080	SW,TACT EVQ11G04M	
S346	87-A90-095-080	SW,TACT EVQ11G04M	
S347	87-A90-095-080	SW,TACT EVQ11G04M	
S348	87-A90-095-080	SW,TACT EVQ11G04M	
S349	87-A90-095-080	SW,TACT EVQ11G04M	
S350	87-A90-095-080	SW,TACT EVQ11G04M	
X101	87-A70-070-080	VIB,CER 5.76MHZ CRHF	

SW C.B

LED438	87-070-197-080	LED,SLP7118C-51-S-T1	
LED439	87-070-197-080	LED,SLP7118C-51-S-T1	
LED440	87-070-197-080	LED,SLP7118C-51-S-T1	
LED441	87-070-197-080	LED,SLP7118C-51-S-T1	
LED442	87-070-197-080	LED,SLP7118C-51-S-T1	
LED443	87-070-197-080	LED,SLP7118C-51-S-T1	
S351	87-A90-095-080	SW,TACT EVQ11G04M	
S352	87-A90-095-080	SW,TACT EVQ11G04M	
S353	87-A90-095-080	SW,TACT EVQ11G04M	
S354	87-A90-095-080	SW,TACT EVQ11G04M	
S355	87-A90-095-080	SW,TACT EVQ11G04M	

AC1 C.B

△ FC1	87-033-147-010	FUSE CLAMP,MT-20<LH>	
△ F101	87-035-368-010	FUSE,4A 250V<LH>	
△ F101	87-035-491-010	FUSE,6A 125V D UL<U>	
△ F102	87-035-368-010	FUSE,4A 250V<LH>	
△ FC2	87-033-147-010	FUSE CLAMP,MT-20<LH>	
△ FC3	87-033-147-010	FUSE CLAMP,MT-20<LH>	
△ FC4	87-033-147-010	FUSE CLAMP,MT-20<LH>	
△ FC101	87-A90-505-080	FUSE CLAMP,TP00351-51<U>	
△ FC102	87-A90-505-080	FUSE CLAMP,TP00351-51<U>	

△ PT101	88-NF6-624-010	PT,8NF-6 LH<LH>	
△ PT101	88-NF6-621-010	PT,8NF-6 U<U>	
△ SW101	87-A90-165-010	SW,SL 1-2-3 SWS2301<LH>	
△ T1	87-A60-317-010	TERMINAL, 1P MSC<LH>	
△ T101	87-A60-317-010	TERMINAL, 1P MSC<U>	
△ T102	87-A60-317-010	TERMINAL, 1P MSC<U>	
△ T2	87-A60-317-010	TERMINAL, 1P MSC<LH>	

AC2 C.B

△ PR101	87-026-691-080	FUSE,10A 125V 251<U>	
△ PR101	87-026-682-080	PROTECTOR,10A 60V491<LH>	
△ PR102	87-026-691-080	FUSE,10A 125V 251<U>	
△ PR102	87-026-682-080	PROTECTOR,10A 60V491<LH>	
△ PR103	87-026-691-080	FUSE,10A 125V 251<U>	
△ PR103	87-026-682-080	PROTECTOR,10A 60V491<LH>	
△ PR104	87-026-691-080	FUSE,10A 125V 251<U>	
△ PR104	87-026-682-080	PROTECTOR,10A 60V491<LH>	
△ W104	85-NF5-628-010	F-CABLE,7P-2.5	

DECK C.B

CON105	87-099-756-019	CONN, 15P 9604 S F	
SFR1	87-024-581-019	SFR,3.3K DIA 6H	
SOL1	82-ZM1-618-410	SOL ASSY, 27	
SOL2	82-ZM1-618-410	SOL ASSY, 27	
SW1	87-A90-248-019	SW,MICRO ESE11SH2CXQ	
SW2	87-A90-248-019	SW,MICRO ESE11SH2CXQ	
SW3	87-A90-248-019	SW,MICRO ESE11SH2CXQ	
SW4	87-036-110-010	SW,MICRO SPPB62	
SW5	87-036-110-010	SW,MICRO SPPB62	
SW6	87-036-110-010	SW,MICRO SPPB62	
SW8	87-A90-248-019	SW,MICRO ESE11SH2CXQ	
SW9	87-A90-248-019	SW,MICRO ESE11SH2CXQ	
W001	82-ZM3-601-019	RBN,CORD,4P-75	

HEAD-1 C.B

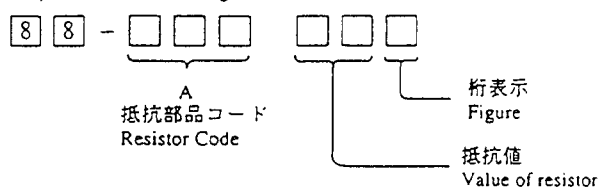
HEAD-2 C.B

CON351	87-NF6-616-010	CONN ASSY,8P-RPB	
--------	----------------	------------------	--

○ チップ抵抗部品コード／CHIP RESISTOR PART CODE

チップ抵抗部品コードの成り立ち

Chip Resistor Part Coding



チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード : A Resistor Code: A
				外形／Form	L	W	t	
1/16W	1608	±5%	CJ		1.6	0.8	0.45	108
1/10W	2125	±5%	CJ		2	1.25	0.45	118
1/8W	3216	±5%	CJ		3.2	1.6	0.55	128

TRANSISTOR ILLUSTRATION



E C B

KTA1266GR
KTC3198GR



E C B

CC5551



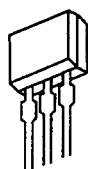
E C B

2SA1296



B C E

2SB1370
FN1016
FP1016



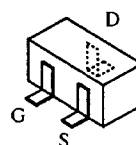
E C B

2SA933
2SC4115

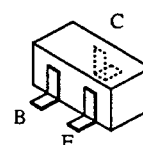


G D S

2SK2937



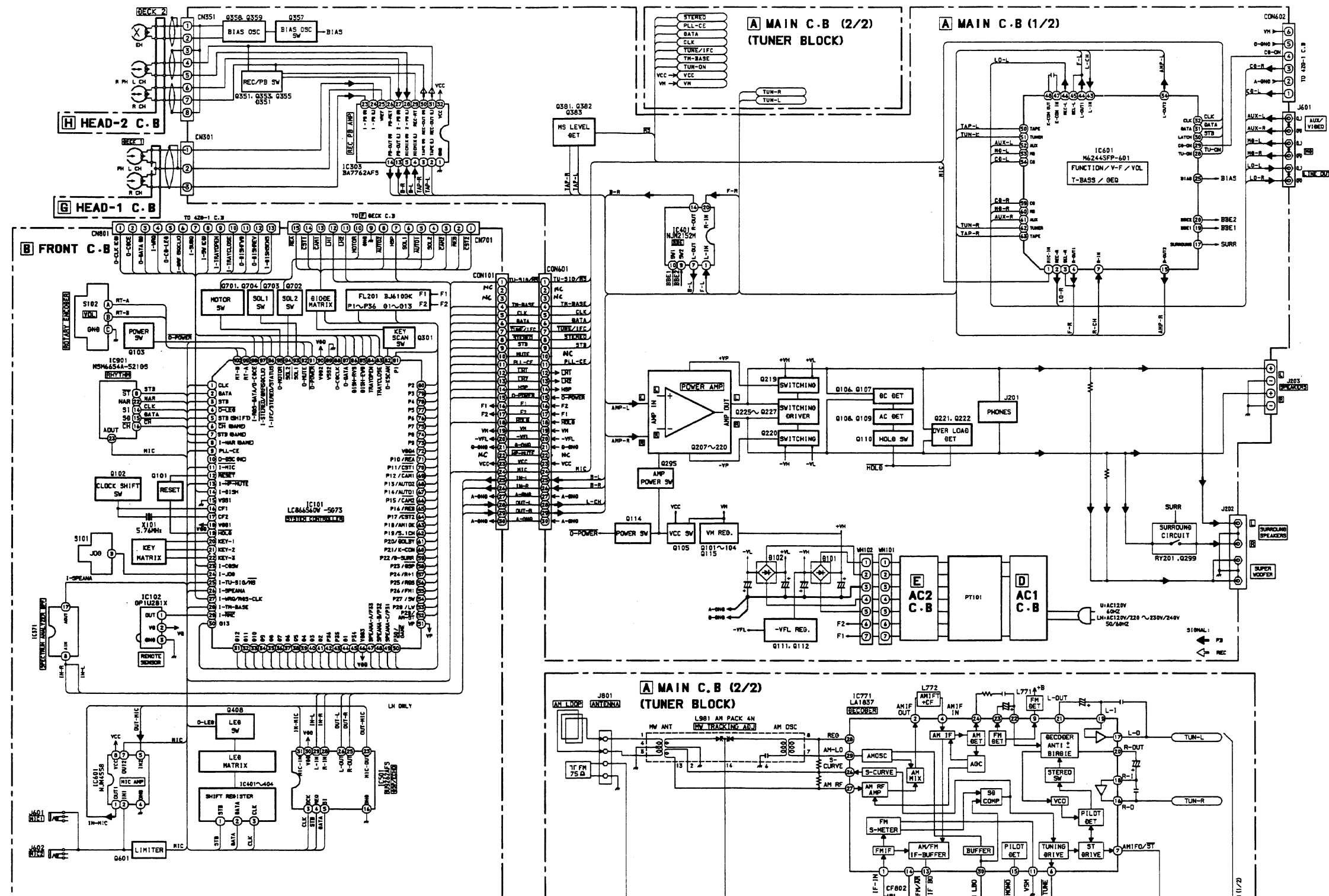
2SK2158



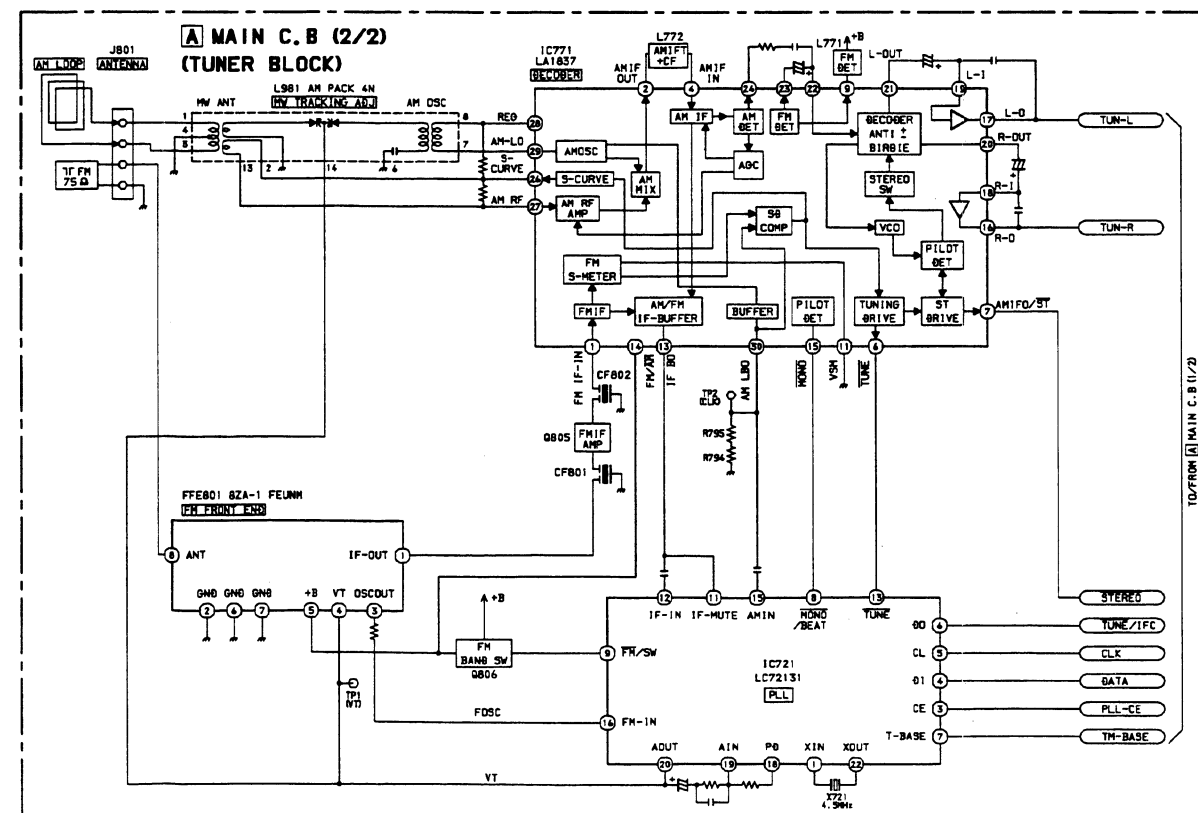
2SA1235F
2SC2714
2SC3052F
CMBT5401
CMBT5551
CSA1362GR
DTA123JK

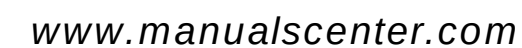
DTA144WK
RN1410
RT1N141C
RT1N144C
RT1P141C
RT1P144C
RT1P441C

BLOCK DIAGRAM (MAIN / FRONT)

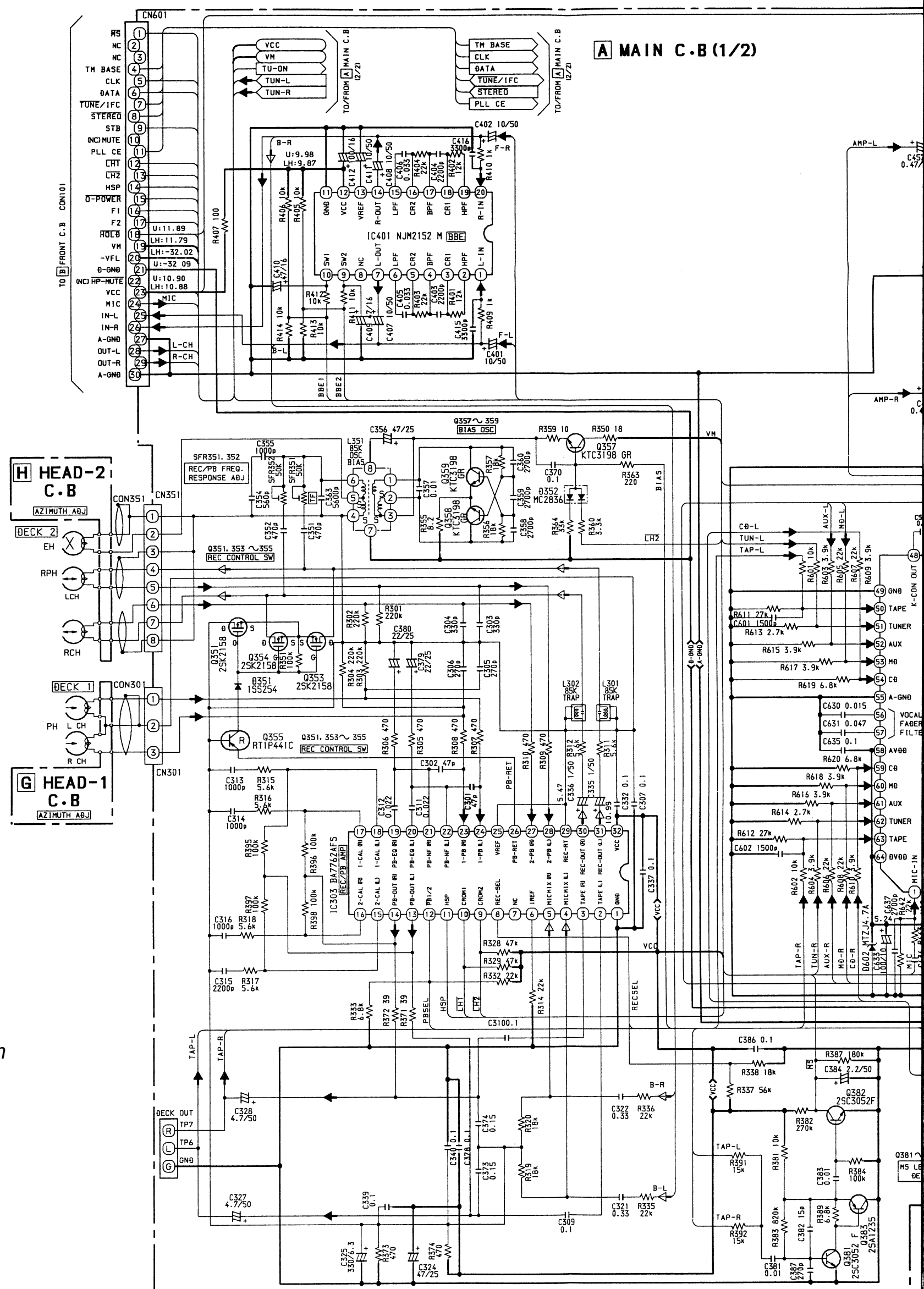


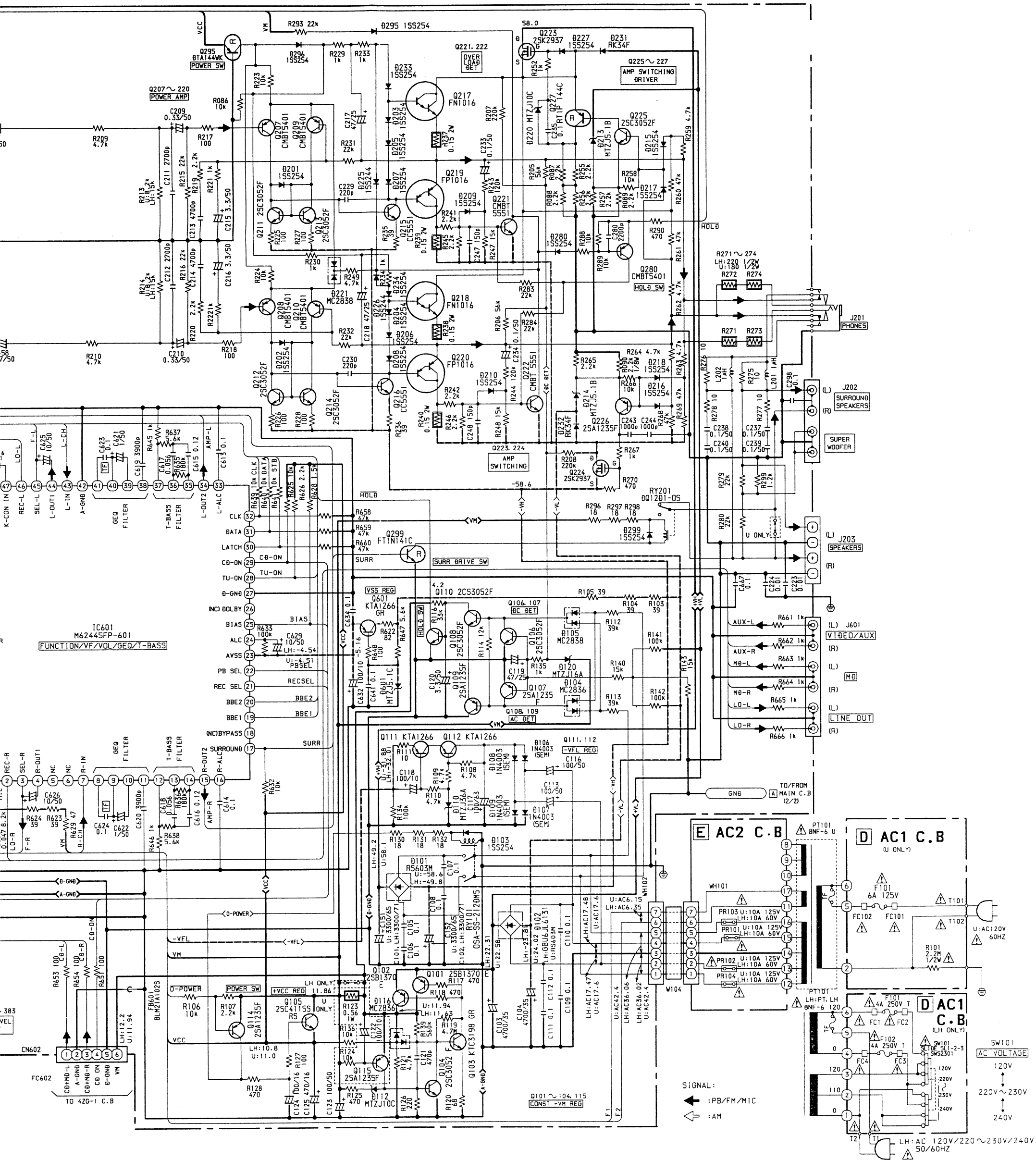
www.manualscenter.com



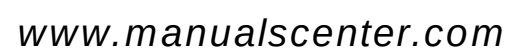


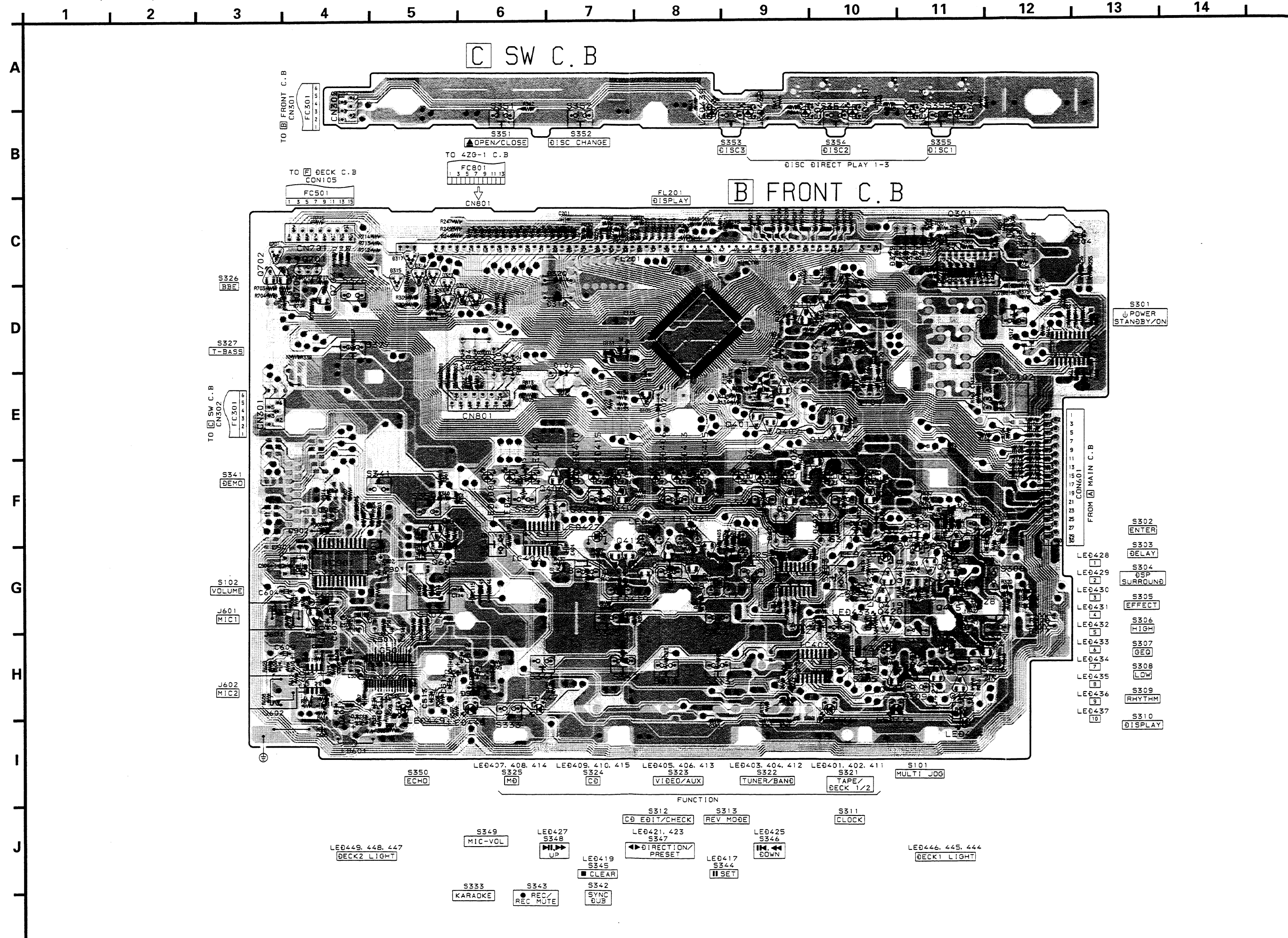
SCHEMATIC DIAGRAM - 1 (MAIN 1/2)

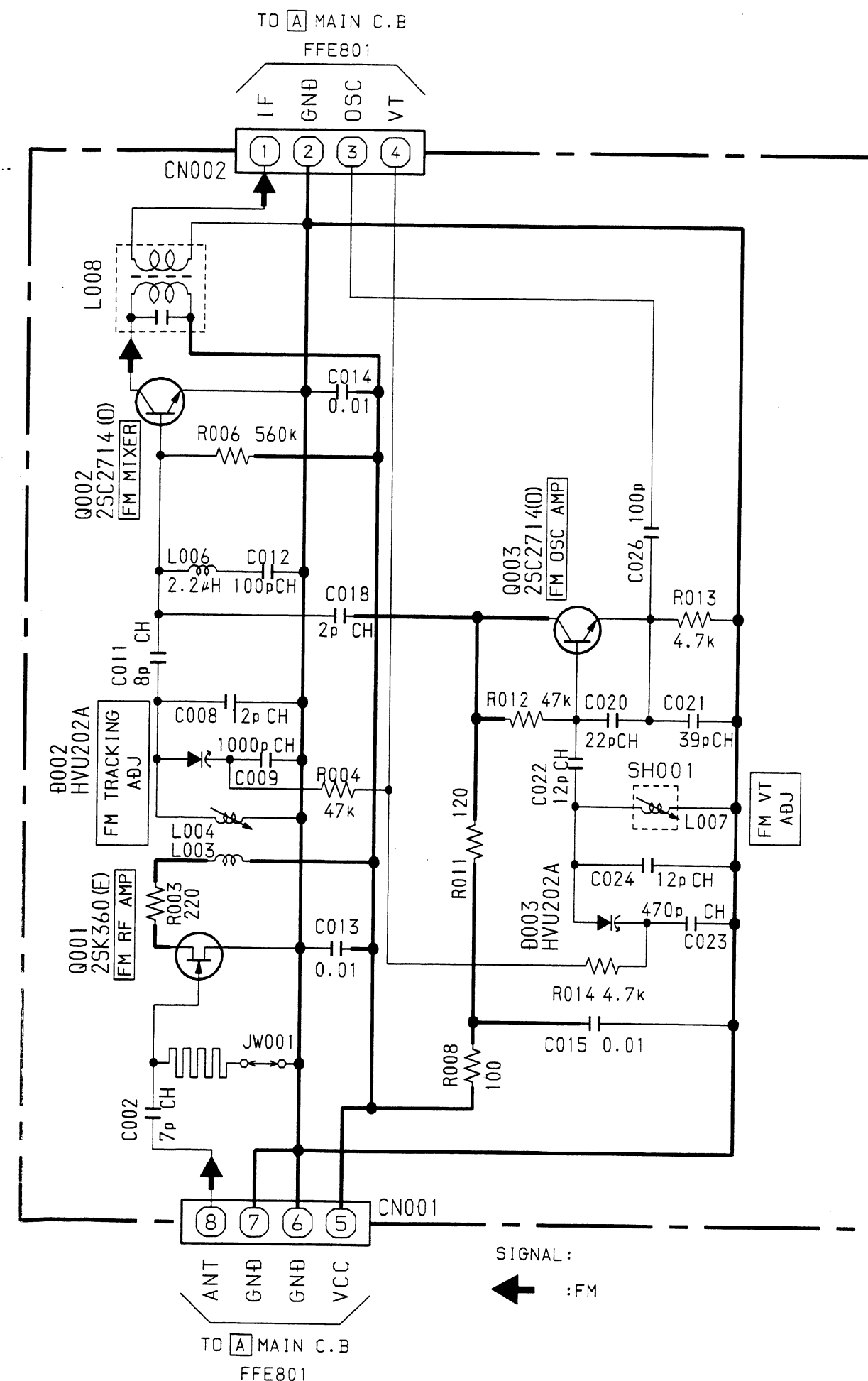
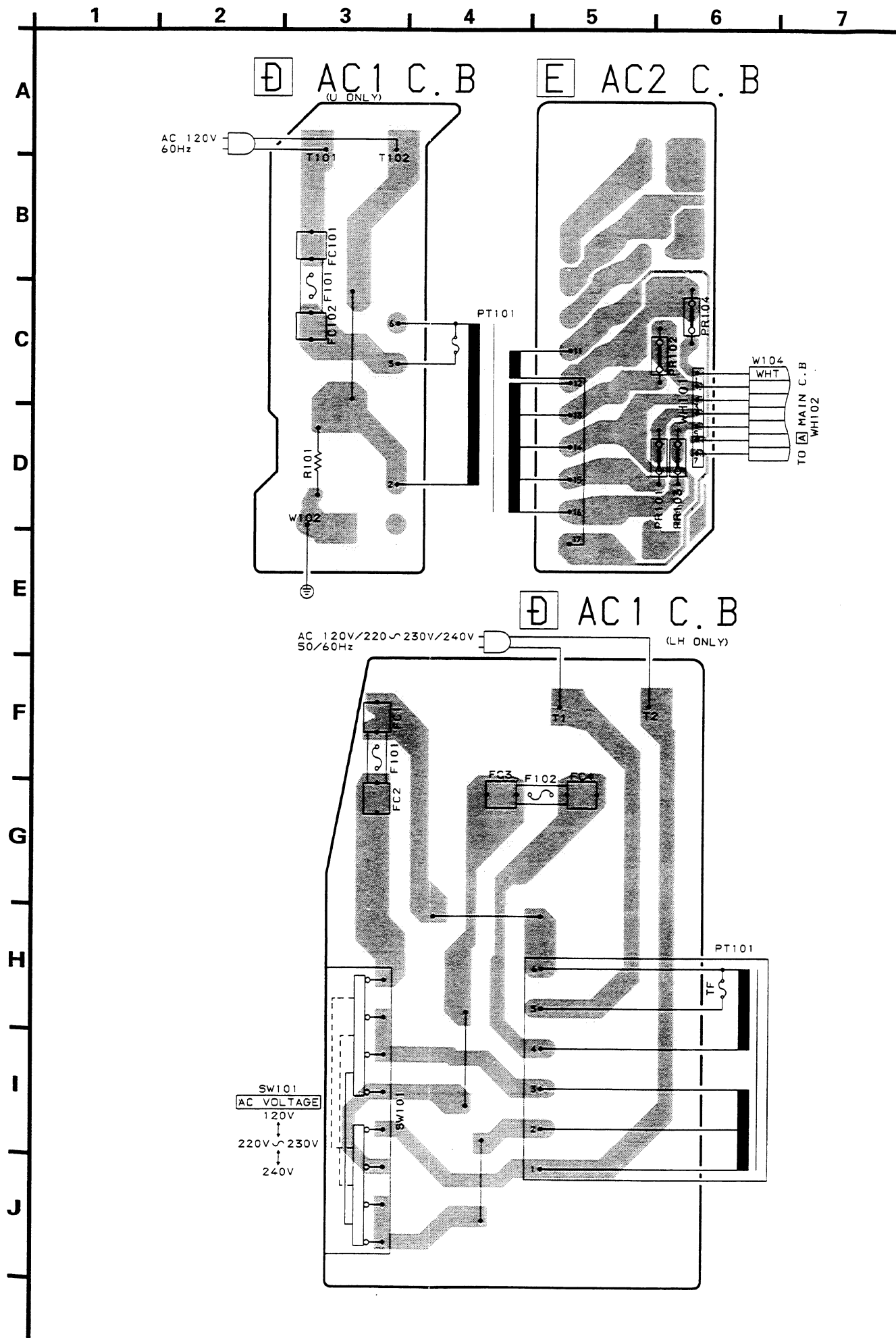


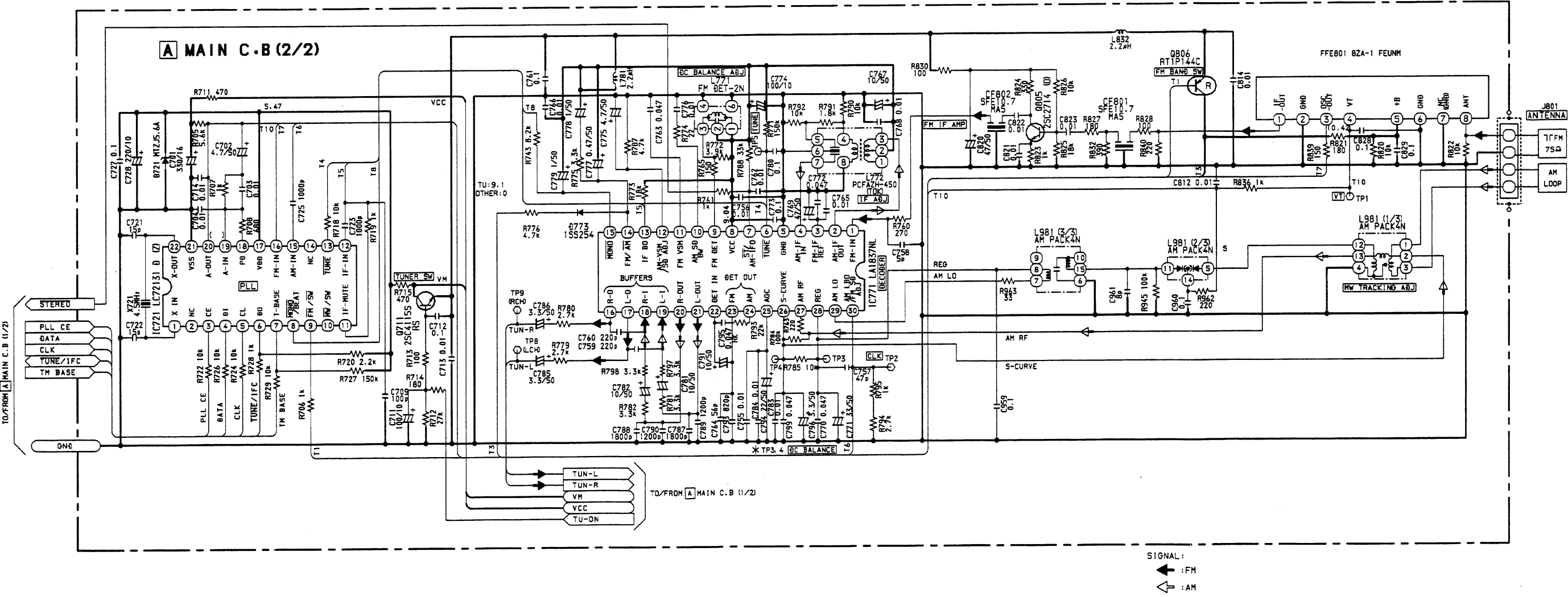


TO [A] MAIN C.B
CON601

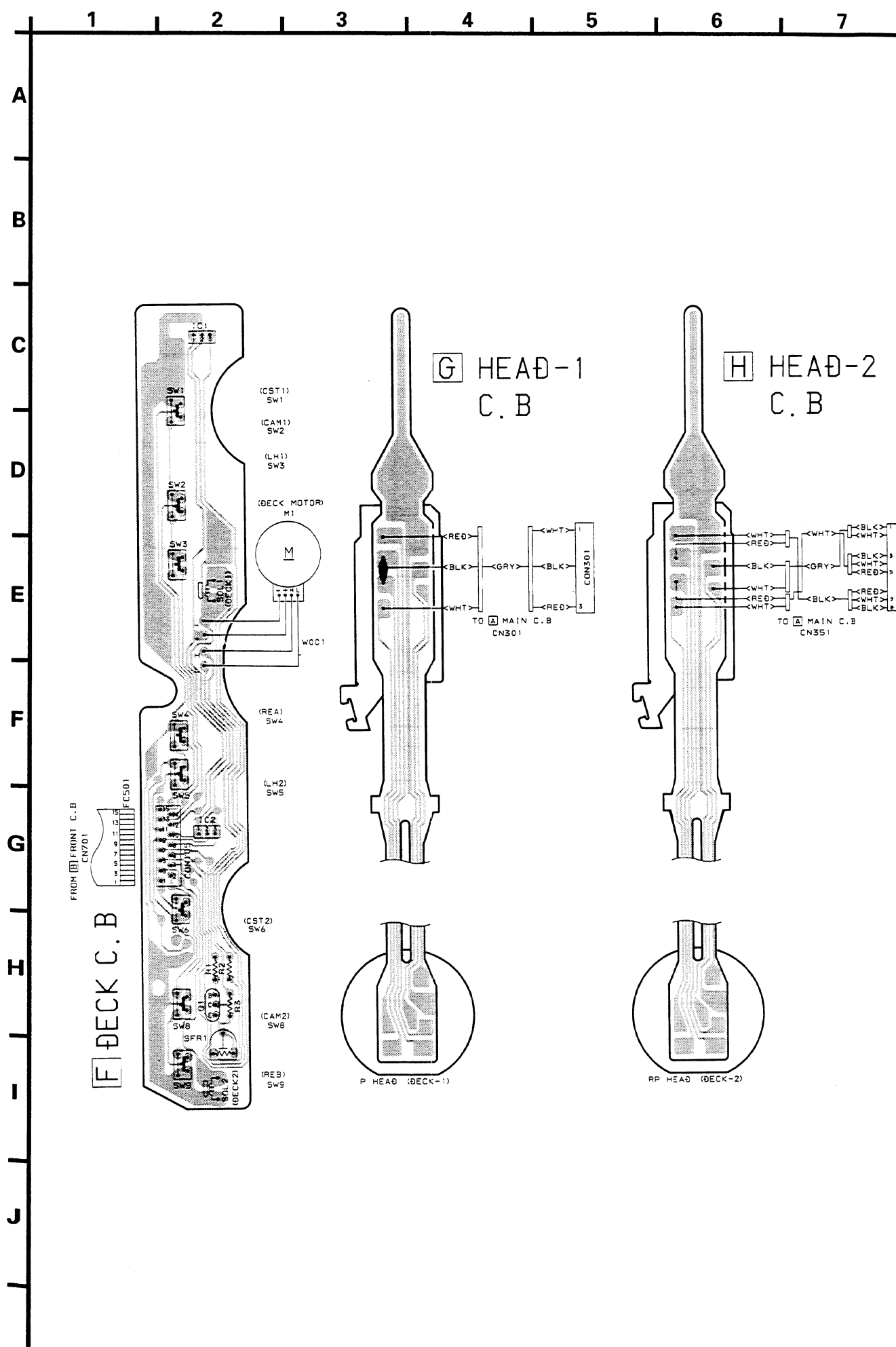








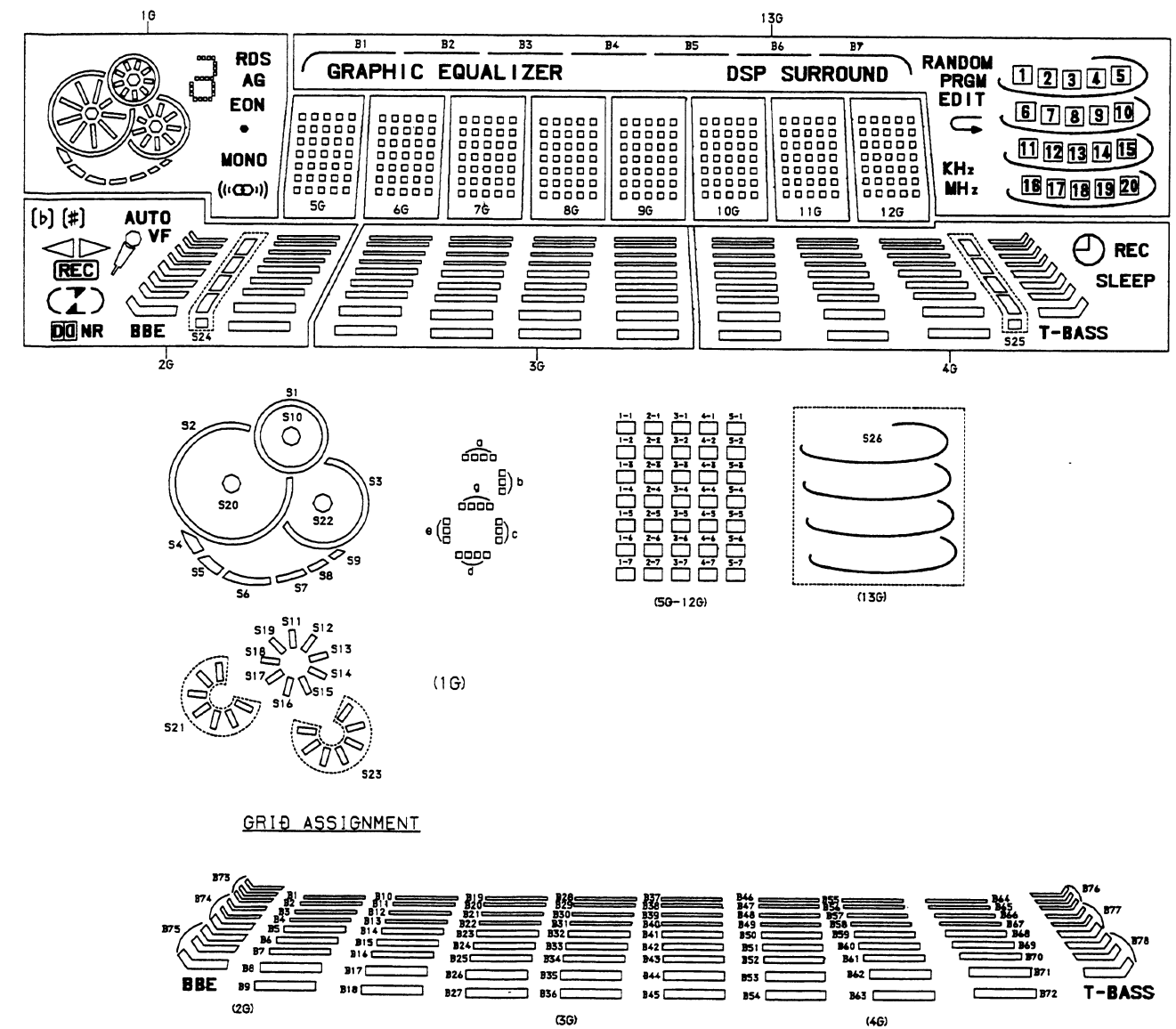
WIRING - 4 (DECK)



FL GRID ASSIGNMENT & ANODE CONNECTION

FL, BJ610GK

GRID ASSIGNMENT

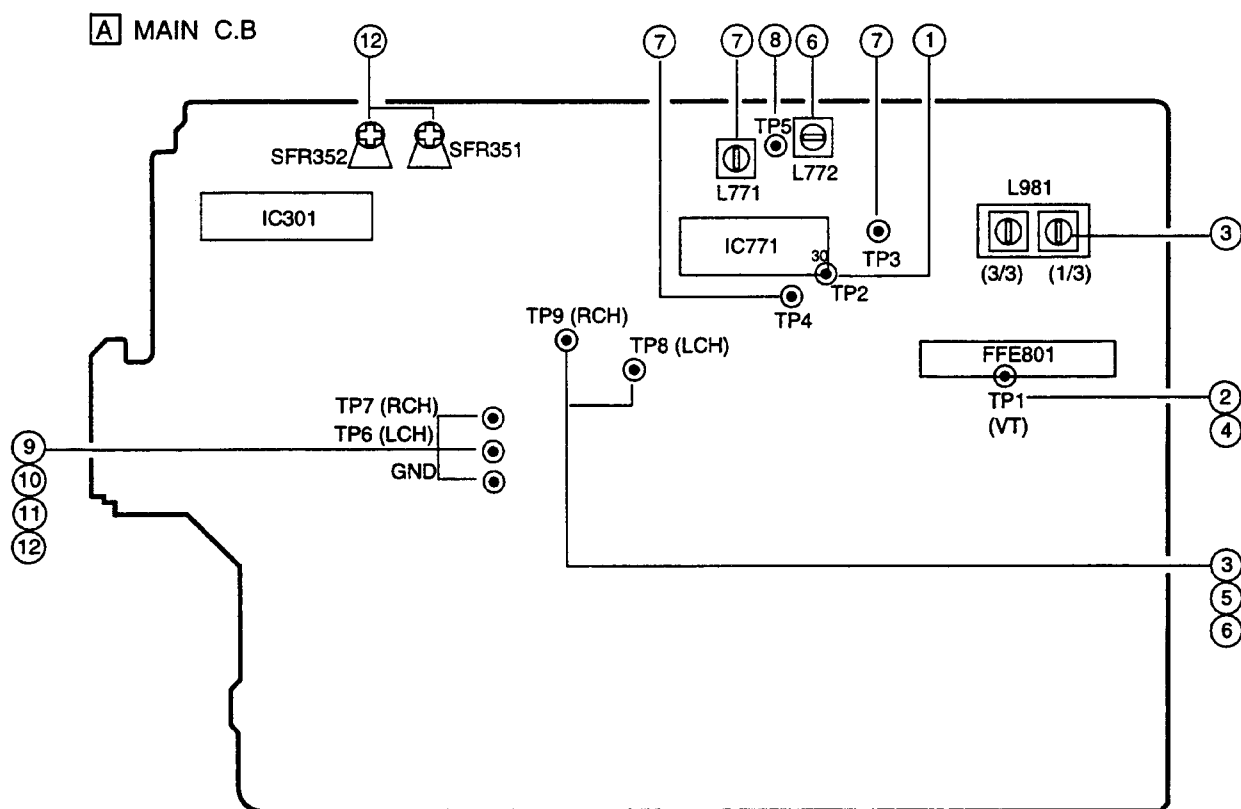


ANODE CONNECTION

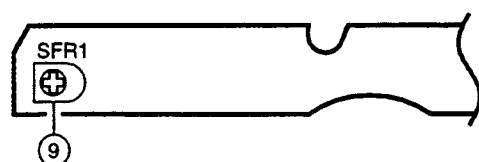
	1G	2G	3G	4G	5G-12G	13G
P1	EON	B9	B45	REC	1-1	DSP SURROUND
P2	AG	 NR	B36	B72	2-1	GRAPHIC EQUALIZER
P3		BBE	B27	B63	3-1	B7
P4	MONO	S24	B18	B54	4-1	B6
P5		B8	B44		5-1	B5
P6	RDS		B35	B71	1-2	B4
P7	b		B26	B62	2-2	B3
P8	c		B17	B53	3-2	B2
P9	a, d, g	B7	B43	SLEEP	4-2	B1
P10	e	REC	B34	B70	5-2	RANDOM
P11	S1		B25	B61	1-3	PRGM
P12	S11		B16	B52	2-3	EDIT
P13	S12	B6	B42	T-BASS	3-3	
P14	S19	b #	B33	B69	4-3	KHz
P15	S13		B24	B60	5-3	MHz
P16	S10		B15	B51	1-4	S26
P17	S18	B5	B41	B78	2-4	16
P18	S14	B75	B32	B68	3-4	11

	1G	2G	3G	4G	5G-12G	13G
P19	S17	B74	B23	B59	4-4	6
P20	S15	B73	B14	B50	5-4	1
P21	S16	B4	B40	B77	1-5	17
P22	S3		B31	B67	2-5	12
P23	S23	AUTO	B22	B58	3-5	7
P24	S22	—	B13	B49	4-5	2
P25	S9	B3	B39	B76	5-5	18
P26	S8	—	B30	B66	1-6	13
P27	S7	—	B21	B57	2-6	8
P28	S6	—	B12	B48	3-6	3
P29	S5	B2	B38	S25	4-6	19
P30	S4	—	B29	B65	5-6	14
P31	S2	—	B20	B56	1-7	9
P32	S21	—	B11	B47	2-7	4
P33	S20	B1	B37	—	3-7	20
P34	—	—	B28	B64	4-7	15
P35	—	—	B19	B55	5-7	10
P36	—	—	B10	B46	—	5

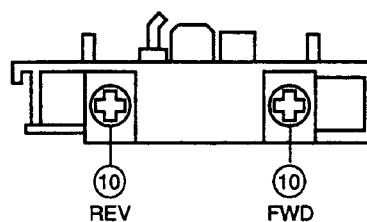
ADJUSTMENT <TUNER / DECK>



F DECK C.B



DECK-1 P, DECK-2 R/P/E HEAD



< TUNER SECTION >

1. Clock Frequency Check

Settings : • Test point : TP2

Method : Set to AM 1710kHz and check that the test point is 2160kHz $\pm$ 45Hz.

2. AM VT Check

Settings : • Test point : TP1

Method : Set to AM 1710kHz and AM 530kHz and check that the test point is less than 8.5V(1710kHz) and more than 0.6V(530kHz).

3. AM Tracking Adjustment

Settings : • Test point : TP8(Lch), TP9(Rch)

• Adjustment location :

L981(1/3) 1000kHz

Method : Set to AM 1000kHz and adjust L981(1/3) to MAX.

4. FM VT Check

Settings : • Test point : TP1

Method : Set to FM 108.0MHz and check that the test point is less than 8.0V.

Set to FM 87.5MHz and check that the test point is more than 0.5V.

5. FM Tracking Check
 Settings : • Test point : TP8(Lch), TP9(Rch)
 Method : Set to FM 98.0MHz and check that the test point is less than 9.0dB.

6. AM IF Adjustment
 Settings : • Test point : TP8(Lch), TP9(Rch)
 • Adjustment location :
 L772 450kHz

7. DC Balance / Mono Distortion Adjustment
 Settings : • Test point : TP3, TP4
 • Adjustment location : L771
 • Input level : 54dB
 Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes $0V \pm 0.04V$.
 Next, check that the distortion is less than 1.3%

8. Auto Stop Level Check
 AM
 Settings : • Input level : 52dB
 • Test point : TP5
 Method : Set to AM 1000kHz and check that the auto stop is at 52dB +10dB / -15dB.

FM
 Settings : • Input level : 25dB
 • Test point : TP5
 Method : Set to FM 98.0MHz and check that the auto stop is at 25dB $\pm$ 10dB.

< DECK SECTION >

9. Tape Speed Adjustment (DECK 1, DECK 2)
 Settings : • Test tape : TTA-100
 • Test point : TP6(Lch), TP7(Rch)
 • Adjustment location : SFR1
 Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz $\pm$ 5Hz.

10. Head Azimuth Adjustment (DECK 1, DECK 2)
 Settings : • Test tape : TTA-300
 • Test point : TP6(Lch), TP7(Rch)
 • Adjustment location : Head azimuth adjustment screw
 Method : Play back (FWD) the 10kHz signal of the test tape and adjust screw so that the output becomes maximum.
 Next, perform on REV PLAY mode.

11. PB Frequency Response Check (DECK 1, DECK 2)
 Settings : • Test tape : TTA-300
 • Test point : TP6(Lch), TP7(Rch)
 Method : Play back the 315Hz and 10kHz signals of the test tape and check that the output ratio of the 10kHz signal with respect to that of the 315Hz signal is within 5dB.

12. REC/PB Frequency Response Adjustment
 Settings : • Test tape : TTA-602
 • Test point : TP6(Lch), TP7(Rch)
 • Input signal : 1kHz / 10kHz (LINE IN)
 • Adjustment location : SFR351 (Lch)
 SFR352 (Rch)
 Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP6, TP7 becomes -28dBV. Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB $\pm$ 0.5dB with respect to that of the 1kHz signal.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>

IHF Sensitivity :	Less than 10 / 9 / 9dB
(THD 3%)	[at 87.5 / 98.0 / 108.0MHz]
S/N 50dB Quieting sensitivity :	Less than 35dB
	[at 98.0MHz]
Signal to noise ratio :	Mono : More than 72dB
	Stereo : More than 66dB
	[at 98.0MHz]
Distortion :	Mono : Less than 1.2%
	Stereo : Less than 2.0%
	[at 98.0MHz]
Auto stop level :	25dB $\pm$ 10dB [at 98.0MHz]
Stereo separation :	More than 30dB [at 98.0MHz]
Intermediate frequency :	10.7MHz

<MW SECTION>

Sensitivity :	Less than 60dB
(S/N 20 dB)	[at 600kHz]
	Less than 58dB
	[at 1000kHz]
	Less than 58dB
	[at 1400kHz]
Signal to noise ratio :	More than 36dB
	[at 1000kHz]
Distortion :	Less than 1.5%
	[at 1000kHz]
Auto stop level :	52dB +10/-15dB
	[at 1000kHz]
Intermediate frequency :	450kHz

<DECK SECTION>

Tape speed :	3000Hz $\pm$ 45Hz
Wow & flutter :	Less than 0.21%
	(W.R.M.S)
Take-up torque :	30 ~ 55g-cm
	(FWD, REV)
F.F torque :	75 ~ 160g-cm
REW torque :	75 ~ 160g-cm
Back tension :	2 ~ 7g-cm
	(FWD, REV)
PB output level :	300mV $\pm$ 3dB
	(SP OUT 2V, TTA-200)
REC/PB output level :	0dB $\pm$ 3dB
	(SP OUT 2V, NORM)
Distortion (REC/PB) :	Less than 2.0%
	(NORM)
Noise level (PB) :	Less than 2.0mV
	(NORM, SP OUT 2V)
Noise level (REC/PB) :	Less than 3.0mV
	(NORM, SP OUT 2V)
Erasing ratio :	More than 60dB
	(at 125Hz, +10VU)
Test tape :	TTA-200
	TTA-602 (NORMAL)

IC DESCRIPTION

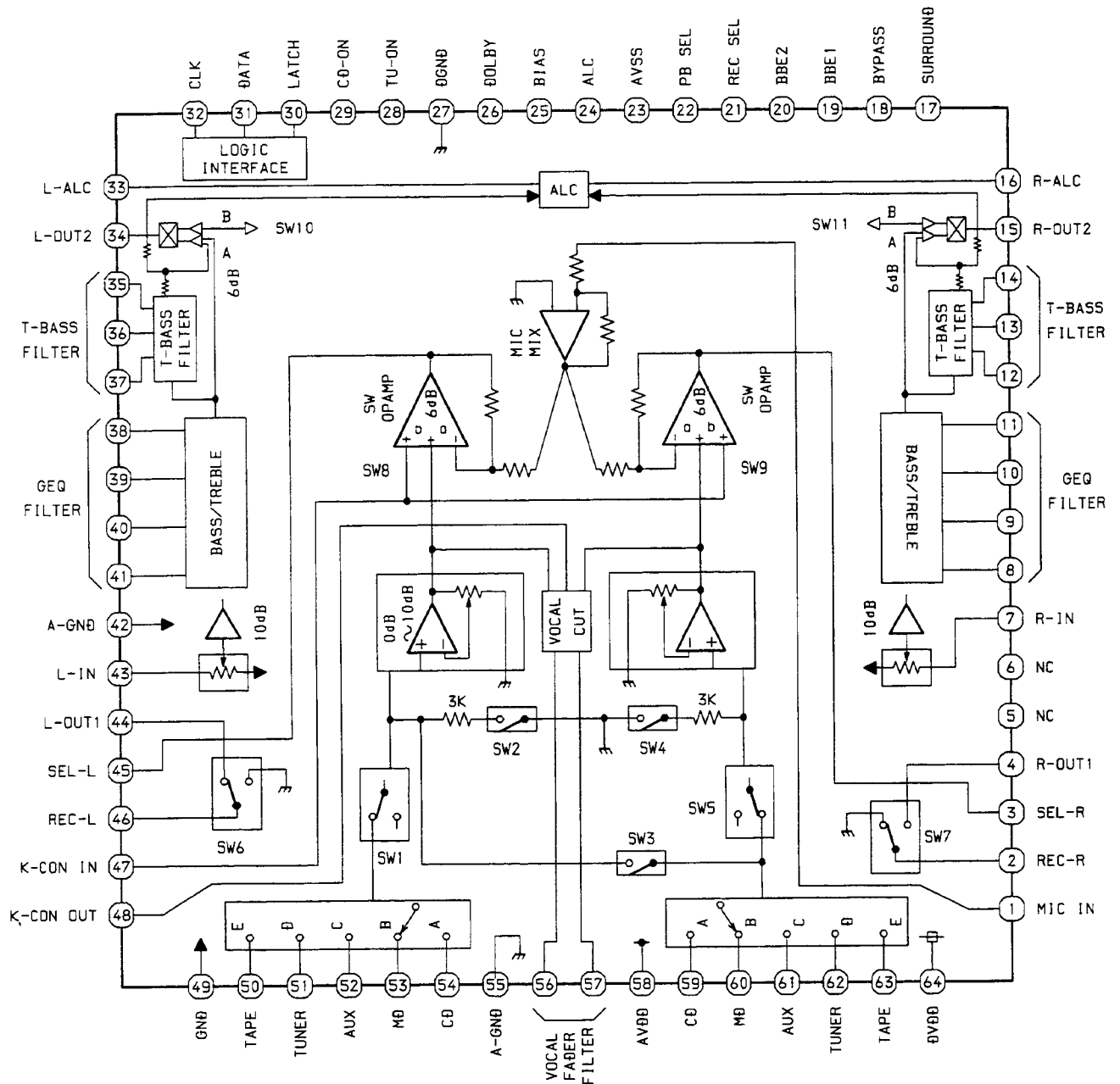
IC, LC866560W-5G73

Pin No.	Pin Name	I/O	Description
1	CLK	O	CLOCK output for MAIN,FRONT PWB.
2	DATA	O	DATA output for MAIN, FRONT PWB.
3	STB	O	Latch strobe output for MAIN PWB.
4	O-LED	O	LED ON/OFF output.
5	STB (SHIFT)	O	Latch strobe output for FRONT shift register.
6	RESET (GAME)	I	Reset input for Sound IC.
7	STB (GAME)	O	Latch strobe output for Sound IC.
8	I-NAR (GAME)	I	Sound IC NAR input.
9	PLL-CE	O	PLL IC chip enable output.
10	O-DSC	O	Serial data output for PROLOGIC PWB. (Not connected)
11	I-MIC	I	Microphone input for AUTO VF display.
12	RESET	I	Reset input.
13	I-HP-MUTE	I	Headphone input for MUTE by PROLOGIC.
14	I-DISH	I	CD turntable photo sensor A/D converter input.
15	VSS 1	-	GND.
16	CF 1	-	5.76MHz oscillator circuit.
17	CF 2	-	
18	VDD 1	-	Power supply input.
19	HOLD	I	Power failure detection input. "H" normal operation, "L" main power cannot be turned on.
20	KEY-1	I	KEY input.(A/D)
21	KEY-2	I	
22	KEY-3	I	
23	I-CD SW	I	CD mechanical switch A/D converter input.
24	I-JOG	I	JOG dial A/D level input.
25	I-TU-SIG/MS	I	Tuner signal and deck music sensor signal input.
26	I-SPEANA	I	A/D input for spectrum analyzer display.
27	I-WRQ/RDS-CLK	I	CD WRQ input. TUNER RDS CLOCK input.
28	I-TM-BASE	I	REFERENCE CLOCK input for timer watch.
29	I-RMC	I	System remote control signal input.
30~41	G13~G2	O	FL GRID output G2~G13.
42, 43	P36, P35	O	FL SEGMENT output P35, P36.
44	G1	O	FL GRID output G1.
45	P34	O	FL SEGMENT output P34.
46	VDD3	-	Power supply input.
47	SPEANA-A/P33	O	Spectrum analyzer band switching output /FL segment P33 output.
48	SPEANA-B/P32	O	Spectrum analyzer band switching output /FL segment P32 output.
49	SPEANA-C/P31	O	Spectrum analyzer band switching output /FL segment P31 output.
50	P30/GAME	I/O	FL segment P30 output / GAME input to diode.
51	VP	-	Power supply input for FL display.
52	P29/AM-ST	I/O	FL segment P29 output / AM-ST input to diode.
53	P28/LW	I/O	FL segment P28 output / LW input to diode.
54	P27/SW	I/O	FL segment P27 output / SW input to diode.

Pin No.	Pin Name	I/O	Description
55	P26/FM 1	I/O	FL segment P26 output / FM1 (OIRT) input to diode.
56	P25/RDS	I/O	FL segment P25 output / RDS input to diode.
57	P24/R+1	I/O	FL segment P24 output / RVS+1 way input to diode.
58	P23/DSP	I/O	FL segment P23 output / DSP input to diode.
59	P22/D-SURR	I/O	FL segment P22 output / SURR input to diode.
60	P21/K-CON	I/O	FL segment P21 output / K-CON input to diode.
61	P20/DOLBY	I/O	FL segment P20 output / DOLBY input to diode.
62	P19/5.1CH	I/O	FL segment P19 output / 5.1CH input to diode.
63	P18/AM10K	I/O	FL segment P18 output / AM 10kHz input to diode.
64	P17/CST 2	I/O	FL segment P17 output / DECK2 cassette detect switch data input.
65	P16/REB	I/O	FL segment P16 output / DECK2 side-B record OK switch data input.
66	P15/CAM 2	I/O	FL segment P15 output / DECK2 CAM switch data input.
67	P14/AUTO 1	I/O	FL segment P14 output / DECK1 AUTO stop signal input.
68	P13/AUTO 2	I/O	FL segment P13 output / DECK2 AUTO stop signal input.
69	P12/CAM 1	I/O	FL segment P12 output / DECK1 CAM switch data input.
70	P11/CST 1	I/O	FL segment P11 output / DECK1 cassette detect switch data input.
71	P10/REA	I/O	FL segment P10 output / DECK2 side A record OK switch data input.
72	VDD 4	-	Power supply input.
73 ~ 81	P9 ~ P1	O	FL segment P1 ~ P9 output.
82	O-KSCAN	O	Switch SCAN timing output.
83	TRAY-CLS	O	CD TRAY CLOSE data output.
84	TRAY-OPEN	O	CD TRAY OPEN data output.
85	DISH-FWD	O	CD turntable forward rotation output.
86	DISH-RVS	O	CD turntable reverse rotation output.
87	O-DATA	O	CD data output.
88	O-CDCLK	O	CD clock output.
89	VSS2	-	GND.
90	VDD2	-	Power supply input.
91	O-POWER	O	System power supply ON/OFF output.
92	O-MUTE	O	System mute ON/OFF output.
93	SOL 1	O	DECK 1 solenoid output.
94	SOL 2	O	DECK 2 solenoid output.
95	O-MOTOR	O	DECK MOTOR ON/OFF output.
96	I-IFC/STEREO/SUBQ	I	Tune IF count serial data input / CD SUBQ data input.
97	I-STEREO/ DRF(SQCLK)	I/O	Tuner stereo detected input / CD SQ CLOCK output.
98	I-RDS-DATA/ O-CDCE	I/O	RDS data input / CD chip enable output.
99	RT-A	I	Rotary encoder A input.
100	RT-B	I	Rotary encoder B input.

IC BLOCK DIAGRAM

IC, M62445FP-601



The diagram illustrates the internal architecture of the 68010 microprocessor, showing the flow of data and control signals between various functional blocks and the external pins.

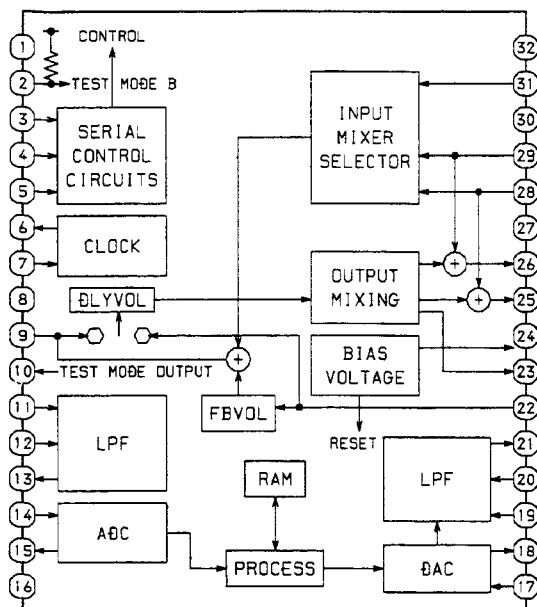
Internal Components:

- Output Buffer (Open Drain):** Receives data from the 12-bit storage register and drives the Q0-Q4 pins.
- 12-bit Storage Register:** Receives data from the 12-bit shift register and provides input to the output buffer.
- 12-bit Shift Register:** Receives data from the Q5-Q9 pins and provides input to the storage register.
- Logic:** Receives control signals (OE, Q10, Q11) and provides control to the output buffer and registers.

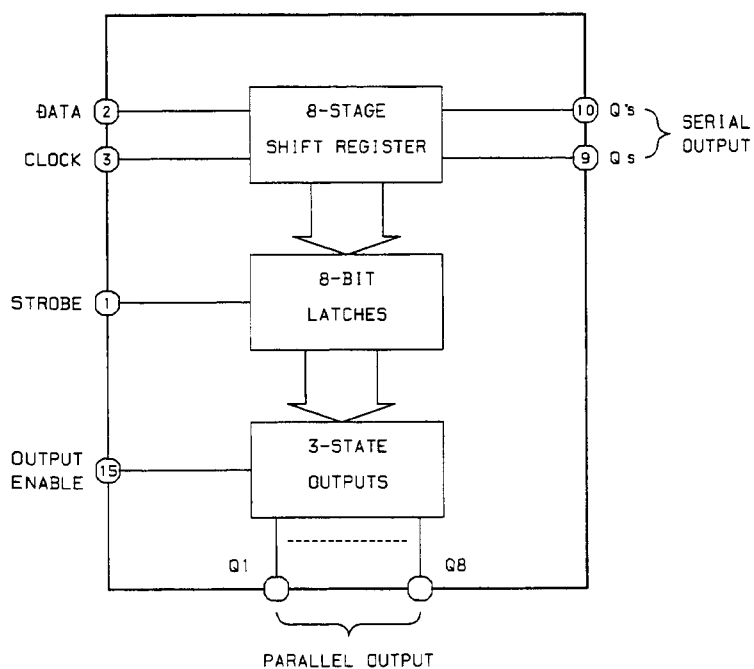
Pin Connections:

- VSS (1):** Ground connection.
- DATA (2):** Data bus input/output.
- CLOCK (3):** Clock signal input.
- LCK (4):** Latch enable input.
- Q0 (5):** Data output pin.
- Q1 (6):** Data output pin.
- Q2 (7):** Data output pin.
- Q3 (8):** Data output pin.
- Q4 (9):** Data output pin.
- Q5 (10):** Data input pin.
- Q6 (11):** Data input pin.
- Q7 (12):** Data input pin.
- Q8 (13):** Data input pin.
- Q9 (14):** Data input pin.
- Q10 (15):** Status output pin.
- Q11 (16):** Status output pin.
- OE (17):** Output enable input.
- VDD (18):** Power supply connection.

IC, BU9262AFS



IC, BU4094BCF



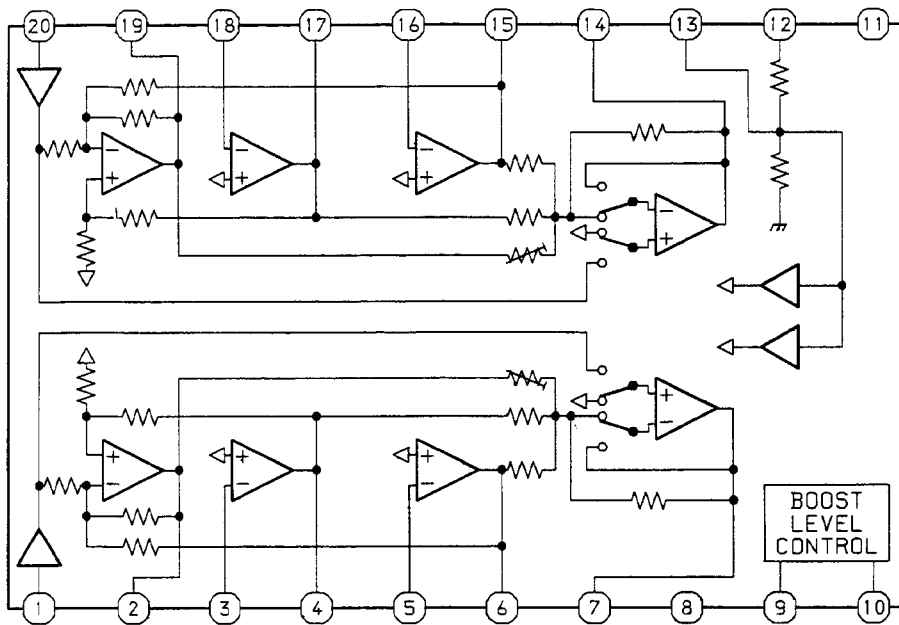
TRUTH TABLE

CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Qs	Q's
	L	X	X	Z	Z	Q7	NO Chg.
	L	X	X	Z	Z	No Chg.	Qs
	H	L	X	No Chg.	No Chg.	Q7	No Chg.
	H	H	L	L	Qn-1	Q7	No Chg.
	H	H	H	H	Qn-1	Q7	No Chg.
	H	X	X	No Chg.	No Chg.	No Chg.	Qs

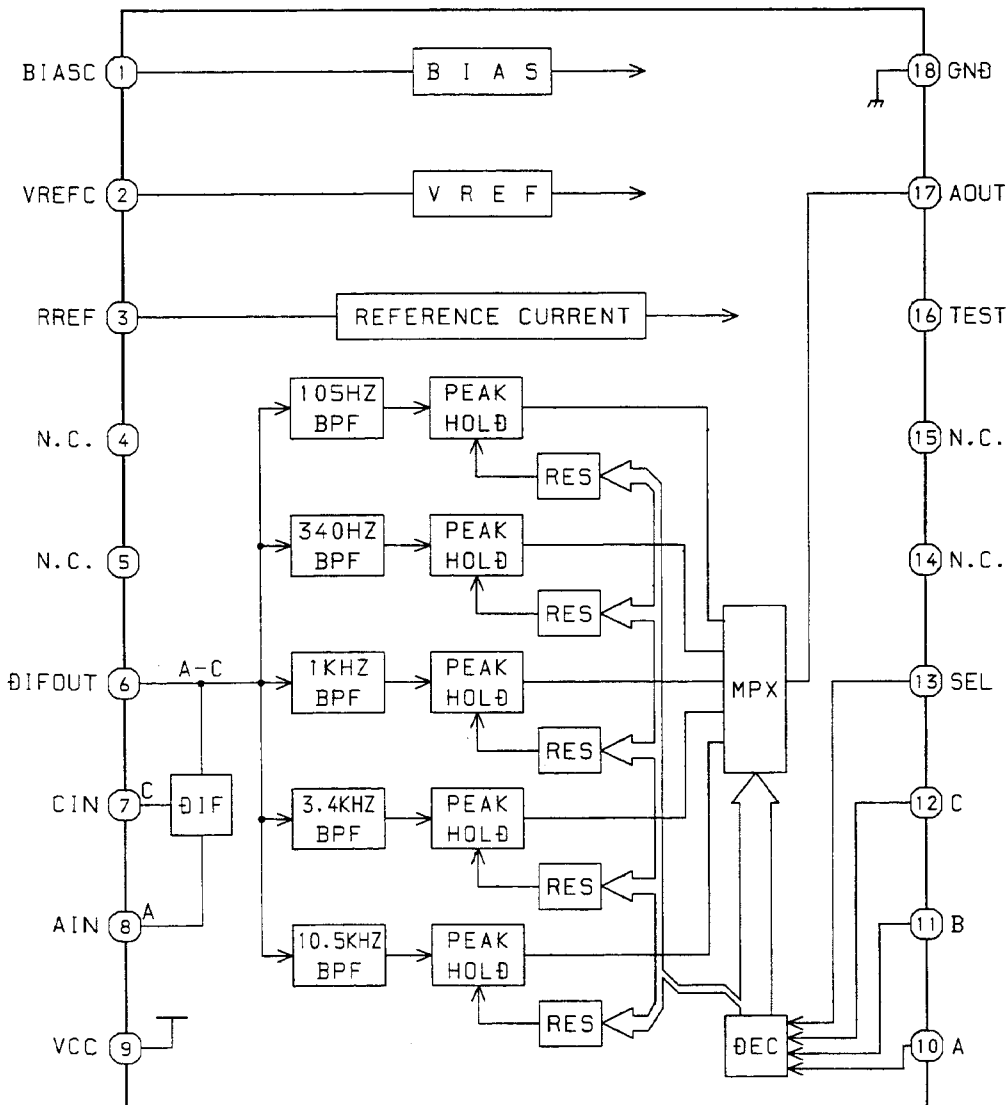
Z=High Impedance

X=Don't Care

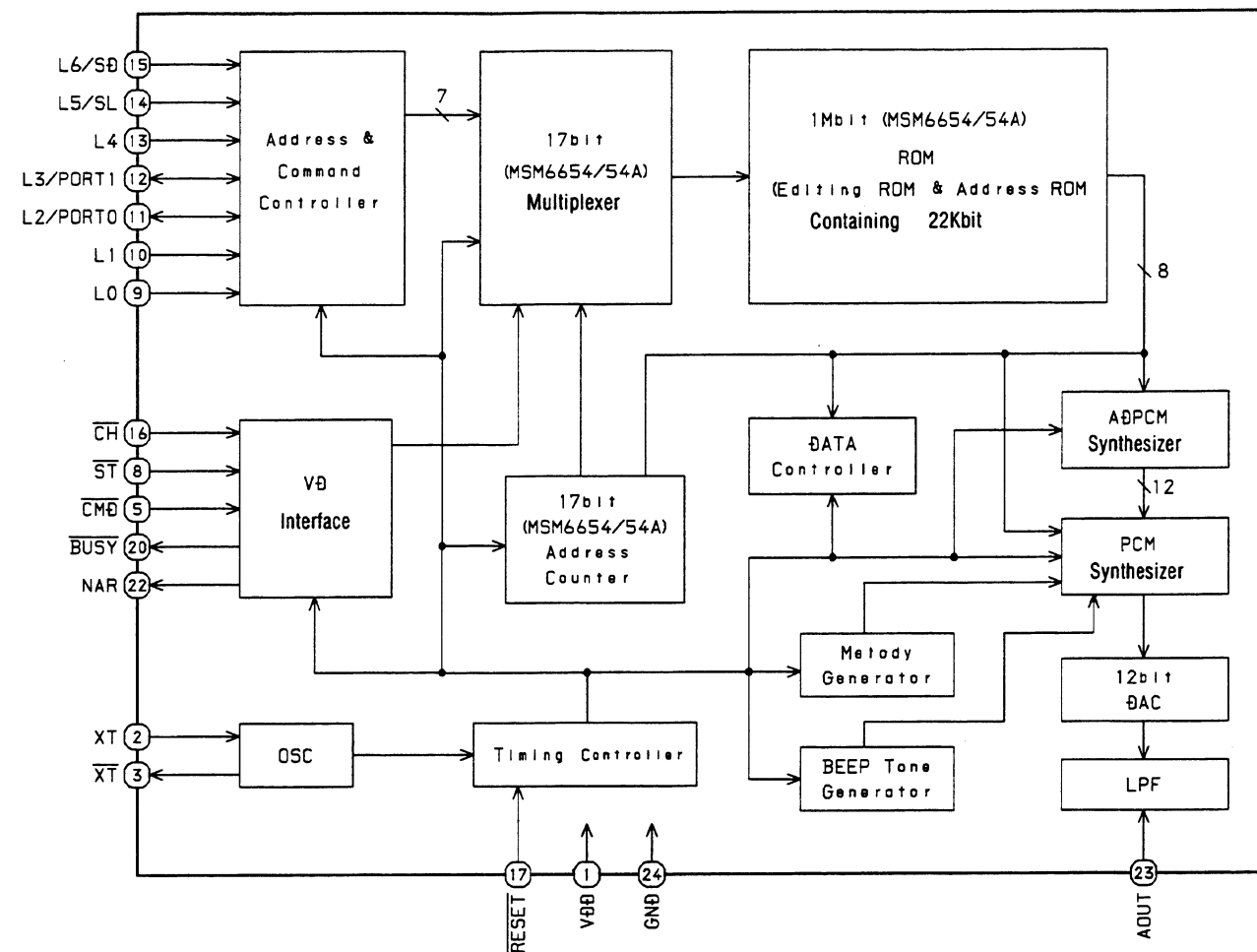
IC, NJM2152M



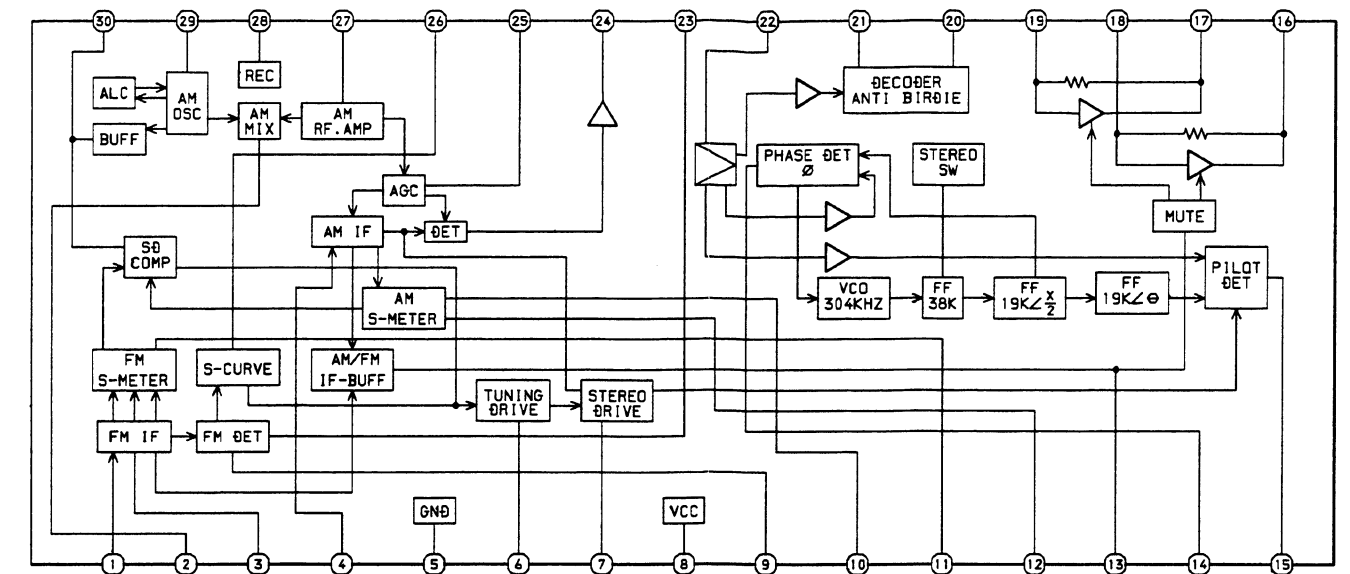
IC, BA3835S



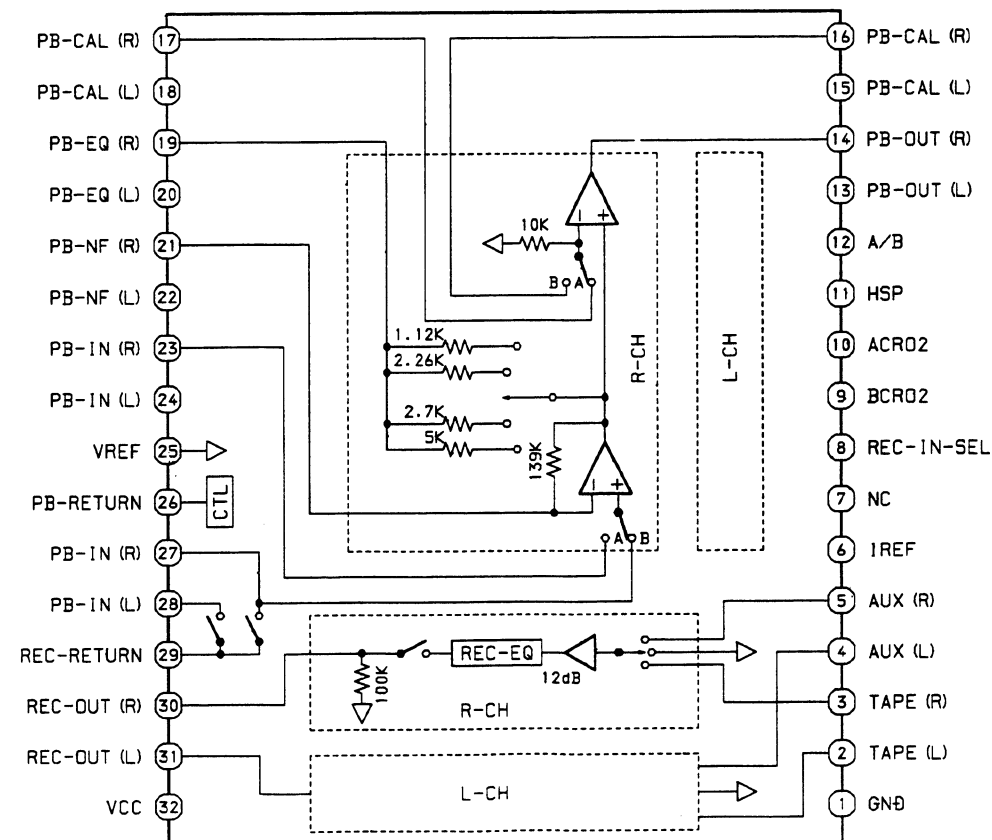
IC, MSM6654A-521GS-KR1

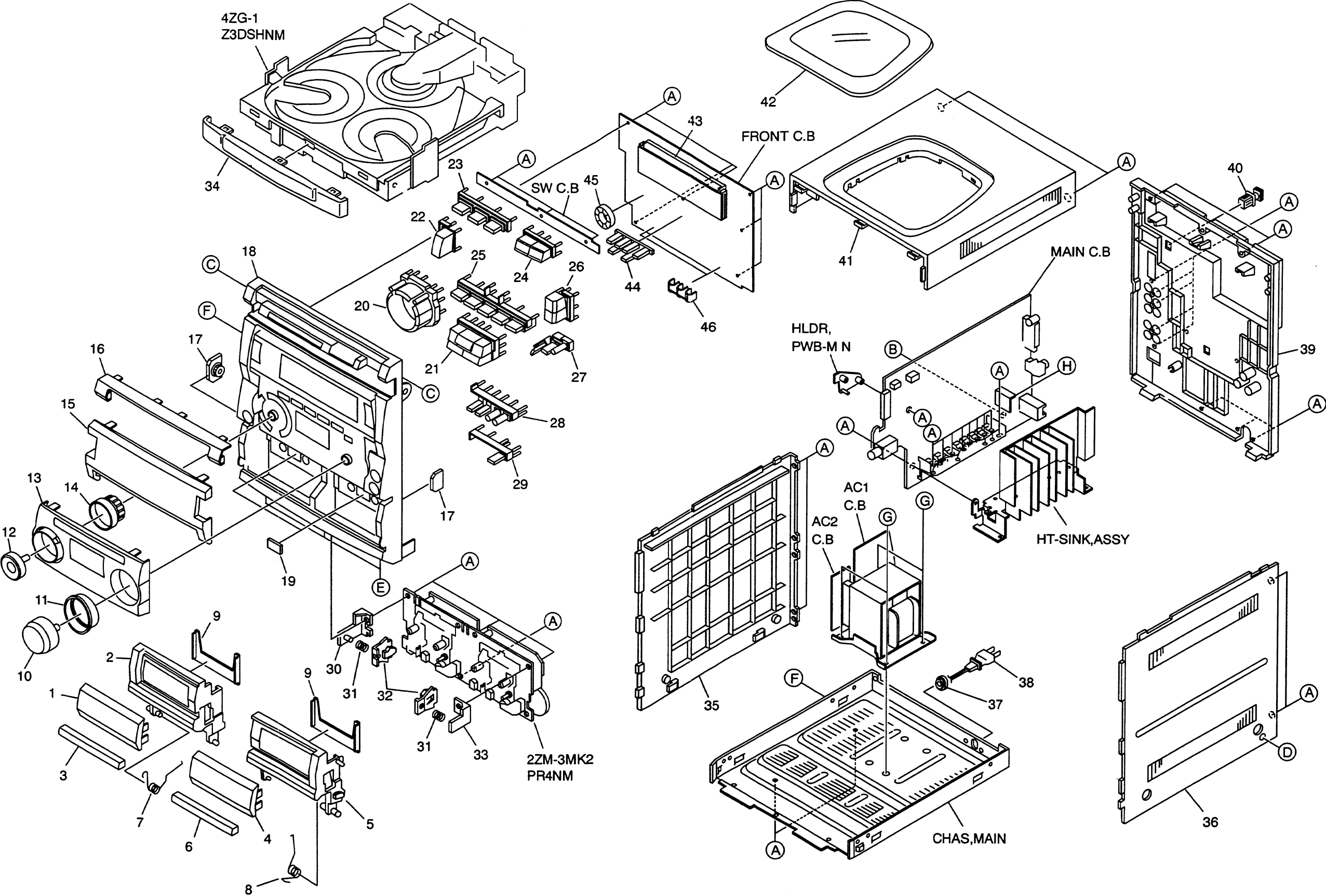


IC, LA1837



IC, BA7762AFS



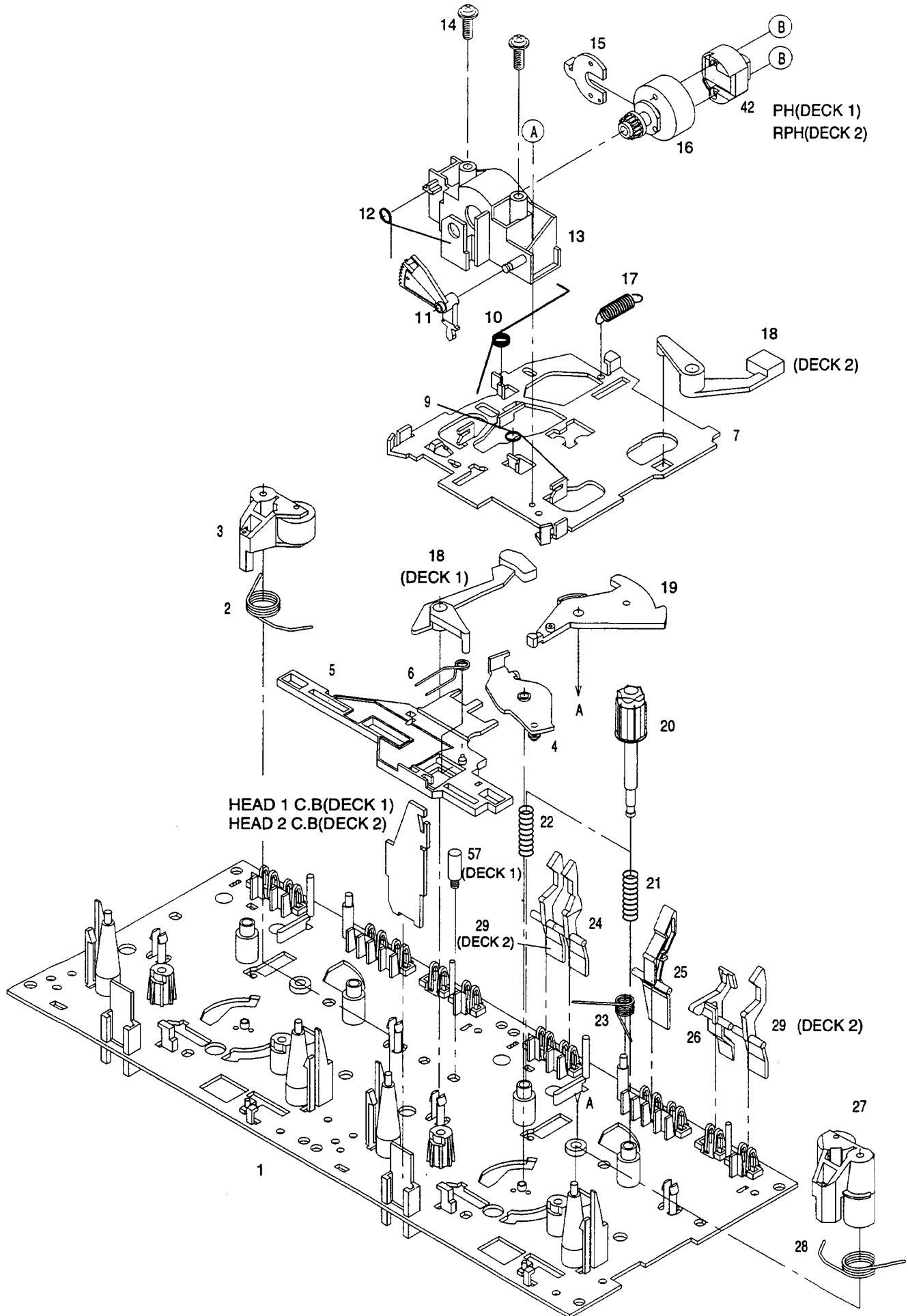


MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

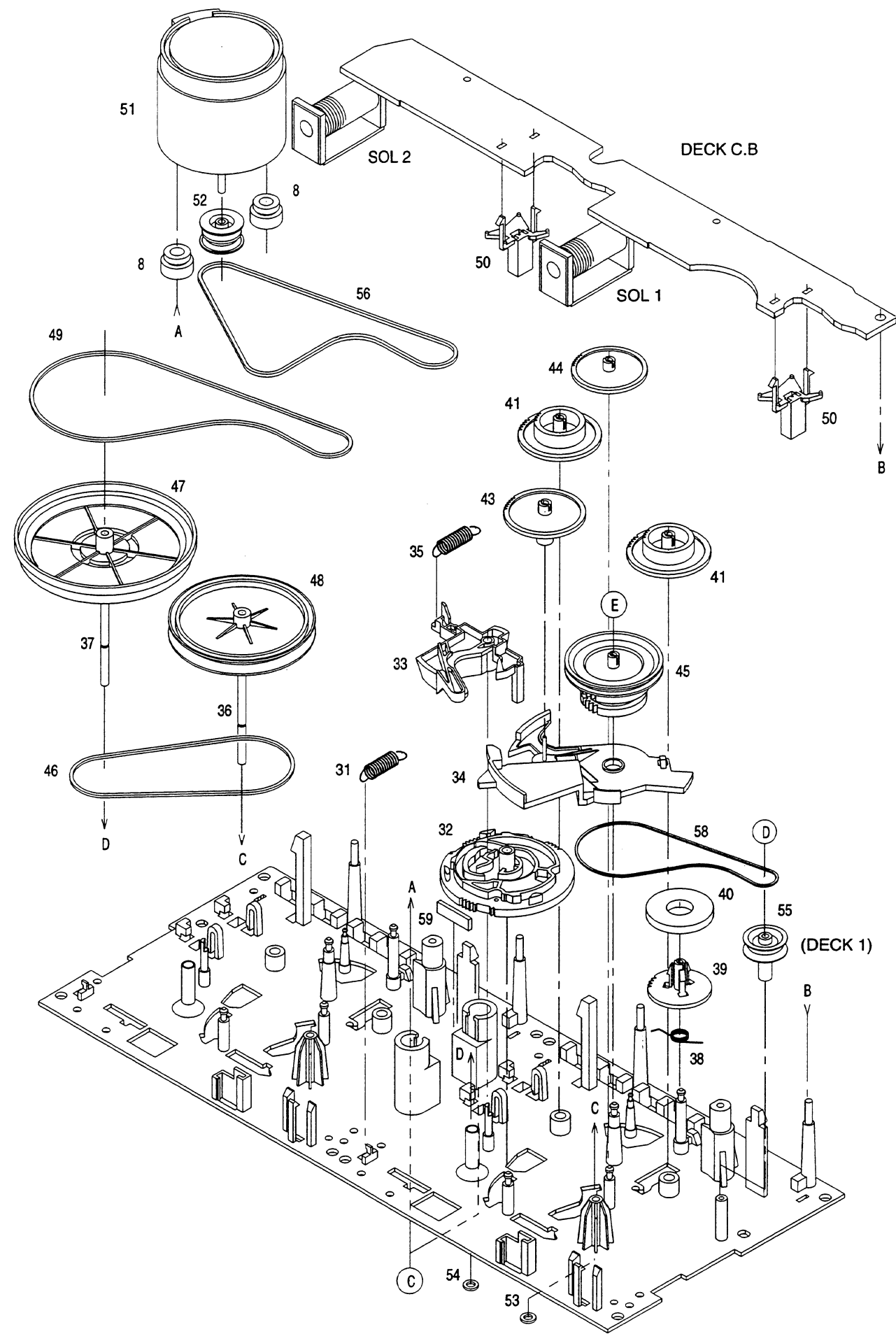
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-NF6-013-010		WINDOW,CASS 1	34	88-NF6-006-010		PANEL,TRAY
2	88-NF6-003-010		BOX,CASS 1	35	87-NB8-005-010		PANEL,LEFT<LH>
3	88-NF6-008-010		PLATE,CASS 1	35	87-NB8-051-010		PANEL,LEFT U<U>
4	88-NF6-014-010		WINDOW,CASS 2	36	88-NF8-047-010		PANEL,RIGHT 2<LH>
5	88-NF6-004-010		BOX,CASS 2	36	88-NF8-048-010		PANEL,RIGHT 2 U<U>
6	88-NF6-009-010		PLATE,CASS 2	37	87-085-185-010		BUSHING, AC CORD (E)<LH>
7	82-NF5-218-010		SPR-T,EJECT 1 (SIN)	37	87-085-189-010		BUSHING, CORD (U)<U>
8	82-NF5-219-010		SPR-T,EJECT 2 (SIN)	38	87-050-053-010		AC CORD ASSY,U-2<U>
9	86-NF6-061-010		REFLECTOR,CASS	38	87-050-079-010		AC-CORD ASSY,E<LH>
10	88-NF6-015-010		KNOB,RTRY VOL	39	88-NF6-058-010		CABI,REAR LHSTNM<LH>
11	88-NF6-017-010		RING,VOL	39	88-NF6-002-010		CABI,REAR USTNM<U>
12	88-NF6-016-010		KNOB,RTRY JOG	40	84-2G1-245-210		CAP,OPTICAL
13	88-NF6-005-010		PANEL,FR	41	87-NF6-021-010		PANEL, TOP
14	88-NF6-050-010		REFLECTOR, JOG	42	86-NF6-101-010		WINDOW TOP UL<U>
15	88-NF6-012-010		WINDOW,DISPLAY<U>	42	86-NF6-007-010		WINDOW, TOP<LH>
15	88-NF6-073-010		WINDOW,DSPLY H 707<LH>	43	88-NF6-205-010		GUIDE,FL 40-150- 9
16	88-NF6-007-010		PANEL,CD	44	88-NF6-204-010		GUIDE,LED OPE
17	87-NF8-220-010		DMPR,150	45	88-NF6-203-010		GUIDE,LED JOG
18	88-NF6-018-010		CABI,FR H<LH>	46	87-NF5-210-010		GUIDE,LED
18	88-NF6-001-010		CABI,FR U<U>	A	87-067-703-010		TAPPING SCREW, BVT2+3-10
19	81-532-080-010		LABEL, CASS. COMPT	B	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
20	88-NF6-029-010		KEY,JOG	C	87-721-097-410		QT2+3-12 GLD
21	88-NF6-041-010		KEY,ASSY OPE	D	87-067-641-010		UTT2+3-8(W/O SLOT)BL
22	88-NF6-026-010		KEY,POWER	E	87-067-688-010		BVTT+3-6
23	88-NF6-021-010		KEY,ASSY DISC	F	87-721-096-410		QT2+3-10 GLD
24	88-NF6-025-010		KEY,OPEN	G	87-078-019-010		S-SCREW,IT+4-6
25	88-NF6-030-010		KEY,ASSY FUN	H	87-067-579-010		TAPPING SCREW, BVT2+3-8
26	88-NF6-027-010		KEY,BBE				
27	88-NF6-036-010		KEY,MIC				
28	88-NF6-037-010		KEY,REC				
29	88-NF6-038-010		KEY,KARAOKE				
30	87-NF4-216-010		HLDR,LOCK 1				
31	86-NF9-224-010		SPR-C,LOCK				
32	82-NF5-229-010		PLATE,LOCK				
33	87-NF4-217-010		HLDR,LOCK 2				

TAPE MECHANISM EXPLODED VIEW 1 / 1



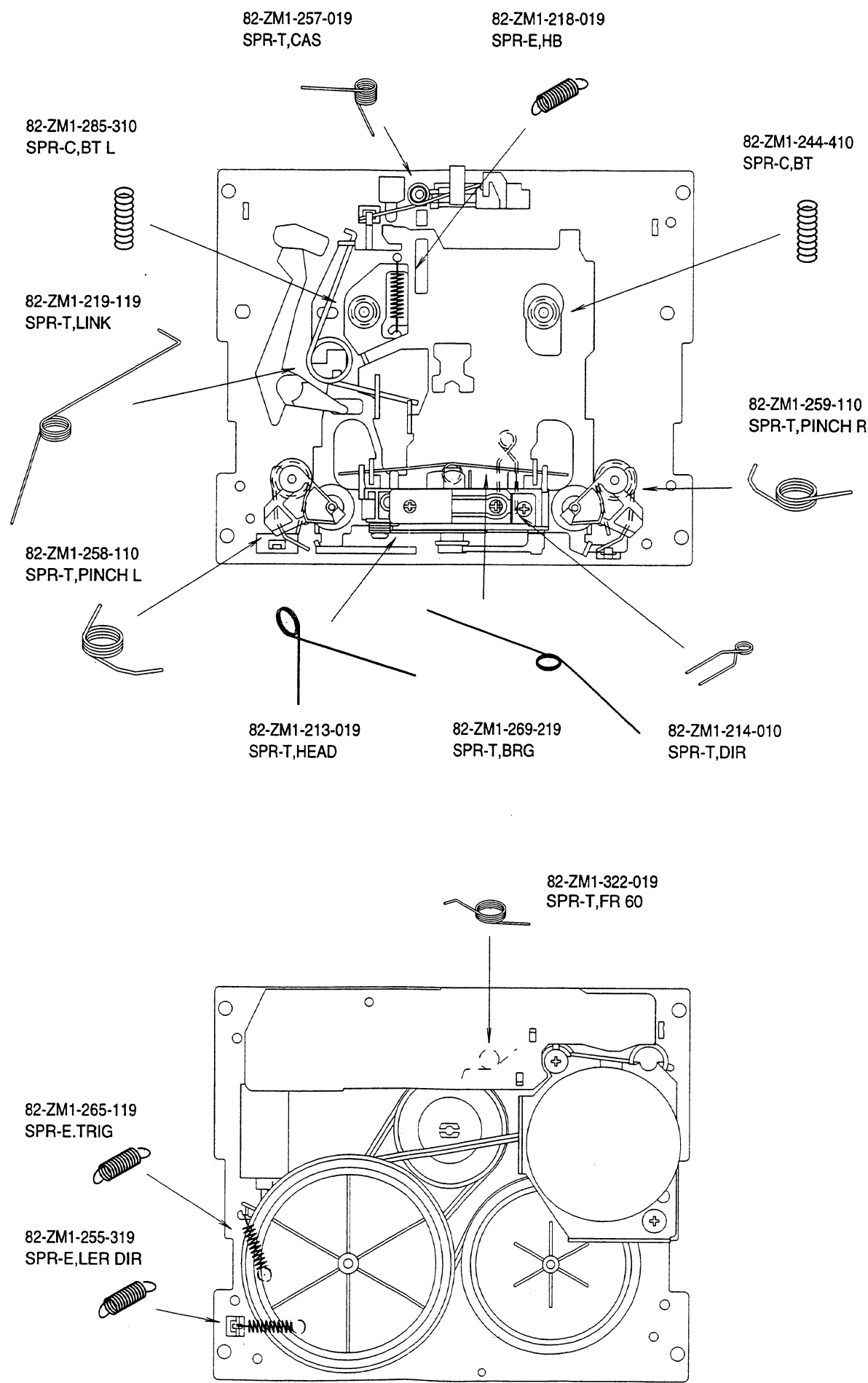
TAPE MECHANISM PARTS LIST 1 / 1

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".



REF. NO.	PART NO.	KANRI NO.	DESCRIPTION	REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-519		CHAS ASSY, M2	36	82-ZM1-236-019		CAPSTAN N 2-41.5
2	82-ZM1-258-110		SPR-T, PINCH L	37	82-ZM1-239-019		CAPSTAN N 2.2-41.7
3	82-ZM1-341-110		LVR ASSY, PINCH L2	38	82-ZM1-322-019		SPR-T, FR60
4	82-ZM1-333-010		PLATE, LINK 2	39	82-ZM1-220-219		GEAR, IDLER
5	82-ZM1-266-11K		LVR, DIR	40	82-ZM3-616-019		RING MAGNET 4
6	82-ZM1-214-010		SPR-T, DIR	41	82-ZM1-216-31K		GEAR, REEL
7	82-ZM1-206-81K		CHAS, HEAD	42	87-A90-319-010		HEAD, PH HADKH2 FPC
8	82-ZM3-307-019		CUSH-G, DIA3.7-8-3.2	42	87-A90-320-010		HEAD, RPH HADKH5 FPC
9	82-ZM1-269-219		SPR-T, BRG	43	82-ZM1-225-21K		GEAR, FR
10	82-ZM1-219-119		SPR-T, LINK	44	82-ZM1-226-019		GEAR, REW
11	82-ZM1-210-119		GEAR, H T	45	82-ZM3-333-310		SLIP DISK ASSY 2
12	82-ZM1-213-019		SPR-T, HEAD	46	82-ZM1-338-010		BELT FR4
13	82-ZM1-207-619		GUIDE, TAPE	47	82-ZM1-349-110		FLY-WHL, R W(DECK 2)
14	86-ZM4-206-010		S-SCREW, AZIMUTH	47	82-ZM3-338-110		FLY-WHL, R3 W(DECK 1)
15	82-ZM1-314-119		PLATE, HEAD	48	82-ZM1-348-010		FLY-WHL, L W(DECK 2)
16	82-ZM1-208-119		HLDR, HEAD	48	82-ZM1-348-010		FLY-WHL, L W(DECK 1)
17	82-ZM1-218-019		LVR-E, HB	49	82-ZM3-329-210		BELT, SBU R2
18	82-ZM1-263-110		LVR, EJECT L (DECK 1)	50	82-ZM1-245-210		HLDR, IC
18	82-ZM1-264-010		LVR, EJECT R (DECK 2)	51	87-045-347-019		MOT, SHU2L 70(M1)
19	82-ZM1-222-21K		LVR, PLAY	52	82-ZM3-221-010		PULLEY, MOT 2M
20	82-ZM1-217-319		REEL TABLE	53	82-ZM1-288-019		SH, 1.63-3.2-0.5 SLT
21	82-ZM1-244-510		SPR-C, BT	54	80-ZM6-243-019		SH, 1.75-3.6-0.5 SLT
22	82-ZM1-285-310		SPR-C, BT L	55	82-ZM3-335-210		PULLEY, COUPLER M3(DECK 1)
23	82-ZM1-257-019		SPR-T, CAS	56	82-ZM3-337-010		BELT, SBU MOT 2
24	82-ZM1-241-319		LVR, MC	57	82-ZM3-339-010		SHAFT, COUPLER N3(DECK 1)
25	82-ZM1-242-019		LVR, CAS	58	86-ZM1-206-010		BELT, MAIN L
26	82-ZM1-243-019		LVR, STOP	59	82-ZM3-340-010		SH, BELT D2
27	82-ZM1-344-110		LVR ASSY, PINCH R2	A	85-ZM3-202-010		S-SCREW, TG
28	82-ZM1-259-110		SPR-T, PINCH R	B	80-ZM6-207-019		V+1.6-7
29	82-ZM1-240-11K		LVR, REC (DECK 2)	C	82-ZM3-318-019		S-SCRW MOTOR M2
31	82-ZM1-255-319		SPR-E, LVR DIR	D	87-B10-043-010		W-P, 0.99-4-0.25 SLT
32	82-ZM3-305-01K		GEAR, CAM M2	E	82-ZM3-334-010		PW, 2.16-6-0.4
33	82-ZM1-227-21K		LVR, TRIG				
34	82-ZM3-306-11K		LVR, FR M2				
35	82-ZM1-265-119		SPR-E, TRIG				

SPRING APPLICATION POSITION

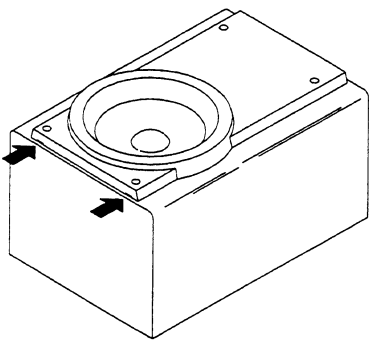


SPEAKER DISASSEMBLY INSTRUCTIONS

Type.1

矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットのビスを取り、スピーカーユニットを外してください。

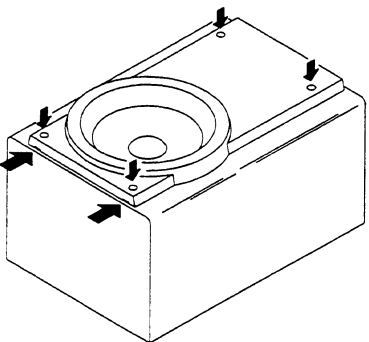
Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



Type.2

グリルフレームを外し、4個のゴムキャップをマイナスドライバーで端の方から持ち上げて外すと中にビスが有りますので、ビスを取り外します。矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットのビスを取り、スピーカーユニットを外してください。

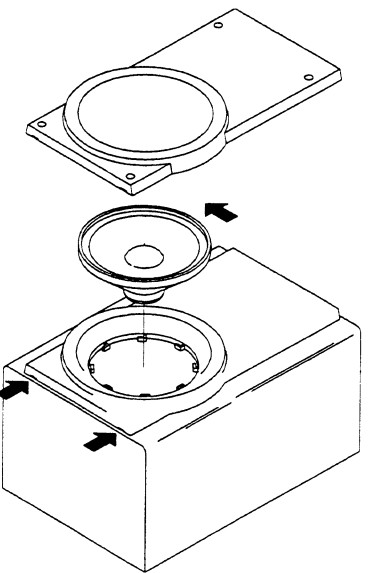
Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver. Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



Type.3

矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットの凹にマイナスドライバーを差し込んで、反時計方向に回転させスピーカーユニットを外してください。スピーカーユニット交換後は時計方向にクリック音がするまで、回転させて取り付けます。

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



SX-NA702 (YUSTNL) SPEAKER PARTS LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-NSF-604-010		SPKR, T 80
2	87-NSF-602-010		SPKR, W 160
3	87-NSF-610-010		SPKR, CORD
4	88-NSG-001-010		PANEL, FR R
5	88-NSG-002-010		PANEL, FR L
6	88-NSG-004-010		GRILLE, FRAME ASSY
7	88-NSG-610-010		SPKR, CERAMIC ASSY

SX-FNS705 (YLSTCC) SPEAKER PARTS LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-NSA-001-010		PANEL, FR
2	87-NSA-002-010		PANEL, SP
3	87-NSA-004-010		GRILLE, FRAME ASSY
4	87-NSA-005-010		GRILLE, FRAME
5	87-NSA-010-010		PROTECTOR
6	87-NSA-007-010		HLDR SQ
7	87-NS4-611-010		SPKR, CORD
8	85-NS6-611-010		SPKR, CORD Y/B
9	87-NSA-610-010		SPKR, CERAMIC
10	87-NSA-611-010		SPKR, CAP
11	86-NSA-608-010		SPKR, W 160H
12	86-NSA-610-010		SPKR, T 60H
13	86-NS5-606-010		SPKR, 80
14	87-NS5-602-010		SPKR, W 160

SX-ANS707 (YLSTNL) SPEAKER PARTS LIST

If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-NS6-001-010		PANEL, FR R
2	88-NS6-002-010		PANEL, FR L
3	88-NS6-005-010		PANEL, PLATE L
4	88-NS6-006-010		PANEL, PLATA R
5	88-NS6-007-010		PANEL, TOP
6	88-NS6-008-010		CABI, TOP L
7	88-NS6-009-010		CABI, TOP R
8	88-NS6-010-010		PANEL, SP L
9	88-NS6-011-010		PANEL, SP R
10	88-NS6-012-010		GRILLE, FRAME ASSY
11	88-NS6-015-010		GRILLE, TOP ASSY
12	88-NS6-020-010		PROTECTOR, L
13	87-NS4-611-010		SPKR, CORD
14	87-NS4-610-010		SPKR, CORD Y1B
15	86-NSA-608-010		SPKR, W 160H
16	87-NS4-605-010		SPKR, T 50
17	88-NS6-610-010		SPKR, CERAMIC
18	88-NS6-606-010		SPKR, S 60
19	88-NS6-604-010		SPKR, T 80

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
G-	-
G-	-
G-	-

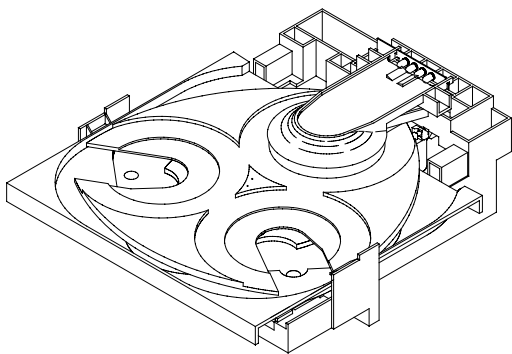
アイワ株式会社
AIWA CO.,LTD.

www.manualscenter.com

9301978, 750038

Tokyo Japan

4ZG-1



CD MECHANISM

• BASIC CD MECHANISM:3ZG-2 E1

• TYPE: English

BASIC NAME	DERIVATION NAME					
4ZG-1	V	O	S1	D	SH	

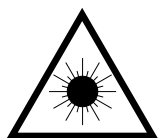
■ This Service Manual has various derivation.Derivation name is indicated by the Service Manual for each model.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainituulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

WARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvisning, kan användaren utsättas för osynlig laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

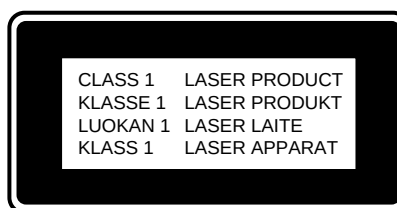
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.

The CLASS 1 LASER PRODUCT label is located on the rear exterior.

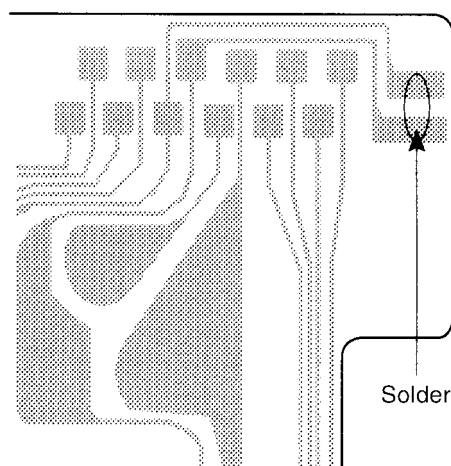


Precaution to replace Optical block (KSS-213F)

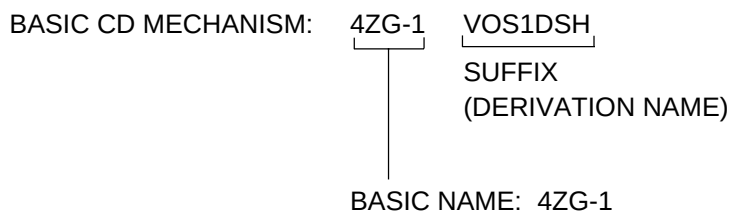
Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

- 1) After the connection, remove solder shown in the right figure.

PICK-UP Assy P.C.B



This is the SERVICE MANUAL for the BASIC CD MECHANISM of BASIC NAME: 4ZG-1. This BASIC NAME includes the following models as shown under the SUFFIX name: DERIVATION NAME. Please use this manual with the separate SERVICE MANUAL for DERIVATION NAME.



BASIC NAME	DERIVATION NAME							
4ZG-1	V	O	S1	D	SH	—	—	—

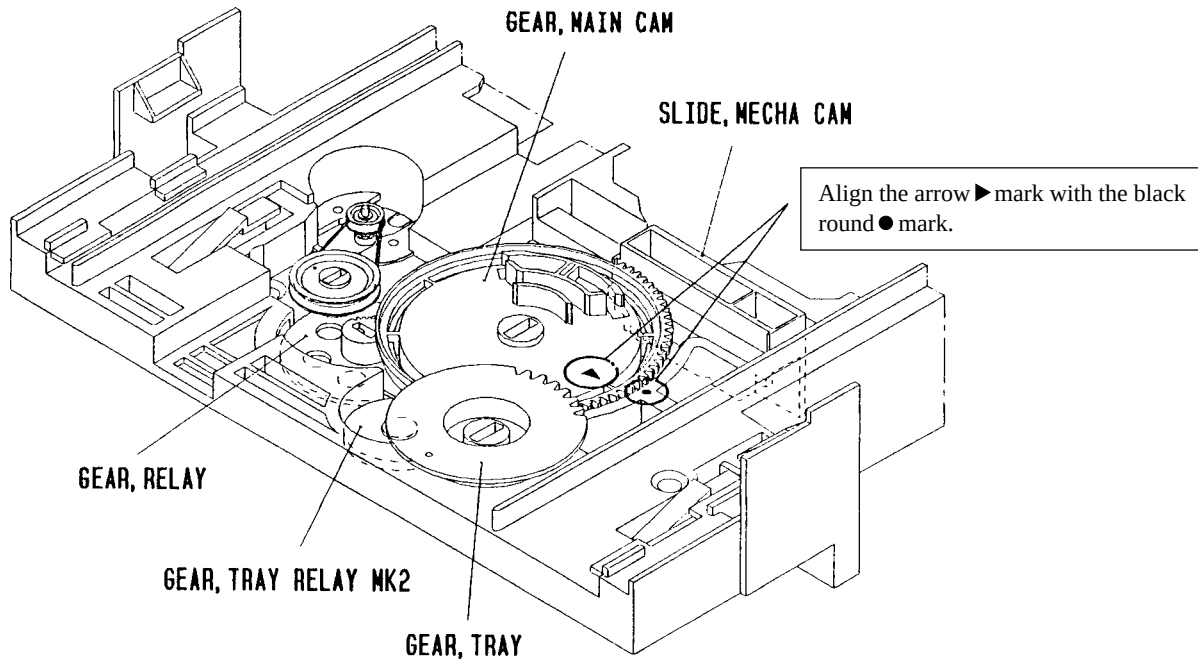
DERIVATION NAME

V: VIDEO OUT
O: On screen display
S1: THE 1st SONY IC MODEL
D: Digital output function
SH: Pick up equipped with shutter

How to Adjust the Rotating Phase of the Gear, Main Cam

- 1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
- 2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS, MECHA as shown below.
- 3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

Caution: If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.



ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

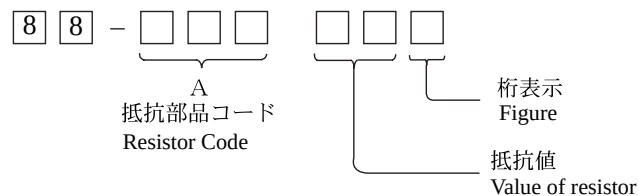
REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC				C135	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-547-010	C-IC, CXA1992AR		C136	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-919-040	C-IC, BA5915FP		C137	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-917-010	C-IC, CXD2540Q-1/2		C138	87-010-182-080		C-CAP,S 2200P-50 B
	84-ZG1-697-010	C-IC, UPD78016FGC-549		C139	87-010-197-080		CAP, CHIP 0.01 DM
	87-017-825-010	IC, GP1F32T		C140	87-010-112-040		CAP,E 100-16
	87-017-760-080	IC, M51943BML		C141	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-602-040	C-IC, M5291FP		C142	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-A20-925-040	C-IC, BA05FP		C143	87-010-213-080		C-CAP,S 0.015-50 B
	87-A20-905-040	C-IC, BA033FP		C151	87-010-263-040		CAP,E 100-10
	87-001-873-010	IC, LB1644		C152	87-010-197-080		CAP, CHIP 0.01 DM
	87-A20-920-010	C-IC, CL680-D1		C153	87-A10-893-040		CAP,E 220-10 M PW
	87-A20-921-040	C-IC, SN74LVU04APW		C154	87-010-197-080		CAP, CHIP 0.01 DM
	87-A20-656-040	C-IC, MB81V4260S-60/70PFTN		C155	87-010-184-080		CHIP CAPACITOR 3300P(K)
	84-ZG1-695-040	C-IC, LH5V2RN1		C156	87-010-992-080		C-CAP,S 0.047-25 B
	87-A20-975-040	C-IC, SN74LV74APW		C157	87-010-992-080		C-CAP,S 0.047-25 B
	87-A20-974-040	C-IC, LC74781M-9017		C158	87-012-156-080		C-CAP,S 220P-50 CH
	87-A20-918-040	C-IC, SM5878AM		C159	87-016-526-080		C-CAP,S 0.47-16 BK
				C160	87-010-314-080		C-CAP,S 22P-50V
				C161	87-010-182-080		C-CAP,S 2200P-50 B
TRANSISTOR				C162	87-010-178-080		CHIP CAP 1000P
	87-026-463-080	TR, 2SA933S (0.3W)		C201	87-016-669-080		C-CAP,S 0.1-25 K B
	87-026-237-080	CHIP-TR, DTC124XK		C204	87-010-197-080		CAP, CHIP 0.01 DM
	89-327-125-080	CHIP TR, 2SC2712GR		C205	87-010-379-040		CAP,E 22-16 M SME
	87-026-231-080	CHIP-TRANSISTER, DTA124XK		C206	87-010-322-080		C-CAP,S 100P-50 CH
	87-A30-117-010	TR, 2SA1357		C207	87-010-322-080		C-CAP,S 100P-50 CH
	89-111-625-080	TR, 2SA1162 (0.15W)		C208	87-010-322-080		C-CAP,S 100P-50 CH
	87-026-580-080	C-TR, DTA123JK		C209	87-010-322-080		C-CAP,S 100P-50 CH
	87-026-470-080	TR, HN1C03F (0.3W)		C210	87-016-669-080		C-CAP,S 0.1-25 K B
				C211	87-010-263-040		CAP,E 100-10
DIODE				C213	87-010-190-080		S CHIP F 0.01
	87-020-027-080	CHIP-DIODE 1SS184		C214	87-010-196-080		CHIP CAPACITOR,0.1-25
	87-017-024-040	C-DIODE, DA204K		C301	87-016-251-040		CAP,E 220-16 SMG
	87-A40-180-040	C-DIODE, SB07-015C		C302	87-012-140-080		CAP 470P
	87-A40-384-080	C-ZENER, UDZ3.3B		C303	87-010-178-080		CHIP CAP 1000P
				C304	87-010-384-040		CAP,E 100-25 SME
				C305	87-010-982-040		CAP,E 33-25 GAS
				C306	87-010-112-040		CAP,E 100-16
				C307	87-010-196-080		CHIP CAPACITOR,0.1-25
				C308	87-010-263-040		CAP,E 100-10
3CD C.B				C309	87-010-196-080		CHIP CAPACITOR,0.1-25
C101	87-010-182-080	C-CAP,S 2200P-50 B		C310	87-010-263-040		CAP,E 100-10
C102	87-016-669-080	C-CAP,S 0.1-25 K B		C311	87-010-196-080		CHIP CAPACITOR,0.1-25
C103	87-016-669-080	C-CAP,S 0.1-25 K B		C312	87-010-178-080		CHIP CAP 1000P
C104	87-016-669-080	C-CAP,S 0.1-25 K B		C320	87-010-196-080		CHIP CAPACITOR,0.1-25
C105	87-010-404-040	CAP,E 4.7-50 SME		C401	87-016-044-040		CAP,E 100-16 GAS
C106	87-016-369-080	C-CAP,S 0.033-25 B K		C402	87-010-190-080		S CHIP F 0.01
C107	87-010-197-080	CAP, CHIP 0.01 DM		C403	87-010-190-080		S CHIP F 0.01
C108	87-010-401-040	CAP,E 1-50 SME		C501	87-010-197-080		CAP, CHIP 0.01 DM
C109	87-010-382-040	CAP,E 22-25 SME		C502	87-010-197-080		CAP, CHIP 0.01 DM
C110	87-010-213-080	C-CAP,S 0.015-50 B		C503	87-010-197-080		CAP, CHIP 0.01 DM
C111	87-010-263-040	CAP,E 100-10		C504	87-010-154-080		CAP CHIP 10P
C112	87-010-197-080	CAP, CHIP 0.01 DM		C505	87-010-154-080		CAP CHIP 10P
C113	87-016-369-080	C-CAP,S 0.033-25 B K		C506	87-010-197-080		CAP, CHIP 0.01 DM
C114	87-016-369-080	C-CAP,S 0.033-25 B K		C508	87-010-263-040		CAP,E 100-10
C115	87-016-369-080	C-CAP,S 0.033-25 B K		C509	87-016-669-080		C-CAP,S 0.1-25 K B
C116	87-012-158-080	C-CAP,S 390P-50 CH		C510	87-010-263-040		CAP,E 100-10
C117	87-012-154-080	C-CAP,S 150P-50 CH		C511	87-016-669-080		C-CAP,S 0.1-25 K B
C118	87-010-494-040	CAP,E 1-50 GAS		C512	87-010-197-080		CAP, CHIP 0.01 DM
C119	87-010-152-080	C-CAP,S 8P-50 CH		C513	87-010-197-080		CAP, CHIP 0.01 DM
C120	87-010-992-080	C-CAP,S 0.047-25 B		C514	87-010-197-080		CAP, CHIP 0.01 DM
C121	87-010-992-080	C-CAP,S 0.047-25 B		C518	87-010-322-080		C-CAP,S 100P-50 CH
C123	87-016-669-080	C-CAP,S 0.1-25 K B		C519	87-012-145-080		CAP, CHIP S 270P CH
C125	87-010-198-080	CAP, CHIP 0.022		C520	87-012-157-080		C-CAP,S 330P-50 CH
C126	87-016-669-080	C-CAP,S 0.1-25 K B		C521	87-012-154-080		C-CAP,S 150P-50 CH
C127	87-010-555-040	CAP,E 100-10 GAS		C522	87-010-371-080		CAP, ELECT 470-6.3V
C130	87-010-555-040	CAP,E 100-10 GAS		C523	87-010-197-080		CAP, CHIP 0.01 DM
C131	87-010-555-040	CAP,E 100-10 GAS		C524	87-010-197-080		CAP, CHIP 0.01 DM
C132	87-010-178-080	CHIP CAP 1000P		C525	87-010-197-080		CAP, CHIP 0.01 DM
C133	87-010-555-040	CAP,E 100-10 GAS		C526	87-010-197-080		CAP, CHIP 0.01 DM
C134	87-010-196-080	CHIP CAPACITOR,0.1-25					

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C527	87-010-197-080	CAP, CHIP 0.01 DM		L506	87-005-204-080	COIL, 47UH	
C528	87-010-197-080	CAP, CHIP 0.01 DM		L507	87-005-204-080	COIL, 47UH	
C529	87-010-197-080	CAP, CHIP 0.01 DM		L508	87-005-817-080	C-COIL, 33UH J FLC32	
C530	87-010-197-080	CAP, CHIP 0.01 DM		M401	87-045-305-010	MOTOR, RF-500TB DC-5V (2MA)	
C531	87-010-197-080	CAP, CHIP 0.01 DM		R130	87-022-364-080	C-RES, S 82K-1/10W F	
C532	87-010-374-040	CAP, E 47-10		R131	87-022-364-080	C-RES, S 82K-1/10W F	
C533	87-010-197-080	CAP, CHIP 0.01 DM		R132	87-022-364-080	C-RES, S 82K-1/10W F	
C534	87-010-555-040	CAP, E 100-10 GAS		R133	87-022-364-080	C-RES, S 82K-1/10W F	
C535	87-010-197-080	CAP, CHIP 0.01 DM		R134	87-022-364-080	C-RES, S 82K-1/10W F	
C536	87-010-078-040	CAP, E 47-6.3 5L		R135	87-022-364-080	C-RES, S 82K-1/10W F	
C537	87-010-197-080	CAP, CHIP 0.01 DM		R507	87-A00-408-080	C-RES, S 2K-1/10W D	
C538	87-010-196-080	CHIP CAPACITOR, 0.1-25		S201	87-A90-162-010	SW, SL 1-1-3 SSSU	
C539	87-016-669-080	C-CAP, S 0.1-25 K B		S401	87-036-109-010	PUSH SWITCH	
C540	87-010-078-040	CAP, E 47-6.3 5L		S402	87-036-109-010	PUSH SWITCH	
C541	87-010-197-080	CAP, CHIP 0.01 DM		W1	84-ZG1-673-010	F-CABLE, 5P 1.25 210MM BLACK N	
C542	87-010-318-080	C-CAP, S 47P-50 CH		W2	85-NFT-611-110	FF-CABLE 16P-1.0	
C544	87-010-197-080	CAP, CHIP 0.01 DM		W3	84-ZG1-630-010	CABLE FFC 6P-1.25	
C546	87-010-197-080	CAP, CHIP 0.01 DM		X201	87-A70-124-080	VIB, CER 8.0MHZ	
C549	87-010-494-040	CAP, E 1-50 GAS		X501	87-A70-125-080	VIB, XTAL 27MHZ 50PPM	
C550	87-010-196-080	CHIP CAPACITOR, 0.1-25		X601	87-030-270-080	VIB, XTAL 16.9344MHZ	
C551	87-012-153-080	C-CAP, S 120P-50 CH					
C552	87-016-526-080	C-CAP, S 0.47-16 BK		LED C.B			
C554	87-010-197-080	CAP, CHIP 0.01 DM		LED401	87-070-200-080	LED, SLP636C-81-S-T1	
C556	87-010-378-040	CAP, E 10-16		LED402	87-017-350-080	LED, SEL1550CM	
C557	87-010-316-080	C-CAP, S 33P-50 CH		LED403	87-017-350-080	LED, SEL1550CM	
C558	87-010-315-080	C-CAP, S 27P-50 CH		LED404	87-070-200-080	LED, SLP636C-81-S-T1	
C560	87-010-197-080	CAP, CHIP 0.01 DM					
C601	87-010-197-080	CAP, CHIP 0.01 DM		T-T C.B			
C602	87-010-197-080	CAP, CHIP 0.01 DM		C401	87-018-214-080	CAP TC U 0.1-50F	
C603	87-010-112-040	CAP, E 100-16		CON401	86-NFZ-675-010	CONN, 5P H 6216-11H	
C604	87-010-196-080	CHIP CAPACITOR, 0.1-25		PS401	87-026-573-010	IC, GP1S53V	
C605	87-010-197-080	CAP, CHIP 0.01 DM					
C606	87-010-197-080	CAP, CHIP 0.01 DM		DRIVE C.B			
C607	87-010-313-080	CAP, CHIP 18P		CN3	87-009-349-010	CONN, 6P H WHT PH	
C608	87-010-313-080	CAP, CHIP 18P		M20	87-045-358-010	MOT, RF-310TA 43	
C609	87-010-178-080	CHIP CAP 1000P		M21	87-045-356-010	MOT, RF-310TA 30	
C610	87-010-178-080	CHIP CAP 1000P		SW1	87-A90-042-010	SW, LEAF MSW-17310MVPO	
C611	87-010-178-080	CHIP CAP 1000P					
C612	87-010-178-080	CHIP CAP 1000P		CD MOTOR C.B			
C613	87-010-403-040	CAP, E 3.3-50 SME		CN4	87-099-210-010	CONN, 5P H BLK 6216	
C614	87-010-403-040	CAP, E 3.3-50 SME		M1	87-045-305-010	MOT, RF-500TB	
C615	87-010-318-080	C-CAP, S 47P-50 CH		SW1	87-035-110-010	SW, MICRO SPPB62	
C616	87-010-318-080	C-CAP, S 47P-50 CH		SW2	87-035-110-010	SW, MICRO SPPB62	
CN101	87-A60-424-010	CONN, 16P V TOC-B					
CN102	87-099-199-010	CONN, 6P 6216 H					
CN401	87-099-212-010	CONN, 5P 6216 V					
CN403	87-099-030-010	CONN, 13P 6216H					
J501	87-009-502-010	JACK, PIN 1P Y EARTH					
L101	87-005-196-080	COIL, 10UH					
L301	87-A50-095-010	COIL, 68UH RCR875D					
L302	87-005-426-080	COIL, 3.3UH K FLR50					
L502	87-005-204-080	COIL, 47UH					
L503	87-005-189-080	COIL 2.7UH					
L504	87-005-187-080	COIL, 1.8UH					
L505	87-005-204-080	COIL, 47UH					

- Regarding connectors, they are not stocked as they are not the initial order items.
The connectors are available after they are supplied from connector manufacturers upon the order is received.

○ チップ抵抗部品コード / CHIP RESISTOR PART CODE

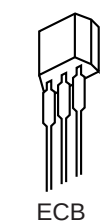
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding



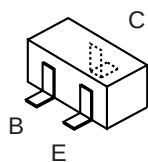
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法 / Dimensions (mm)				抵抗コード : A Resistor Code : A
				外形 / Form	L	W	t	
1/16W	1608	5%	CJ		1.6	0.8	0.45	108
1/10W	2125	5%	CJ		2	1.25	0.45	118
1/8W	3216	5%	CJ		3.2	1.6	0.55	128

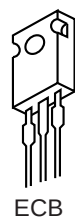
TRANSISTOR ILLUSTRATION



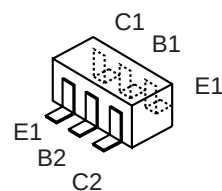
2SA933S



2SA1162
2SC2712
DTA123JK
DTA124XK
DTC124XK

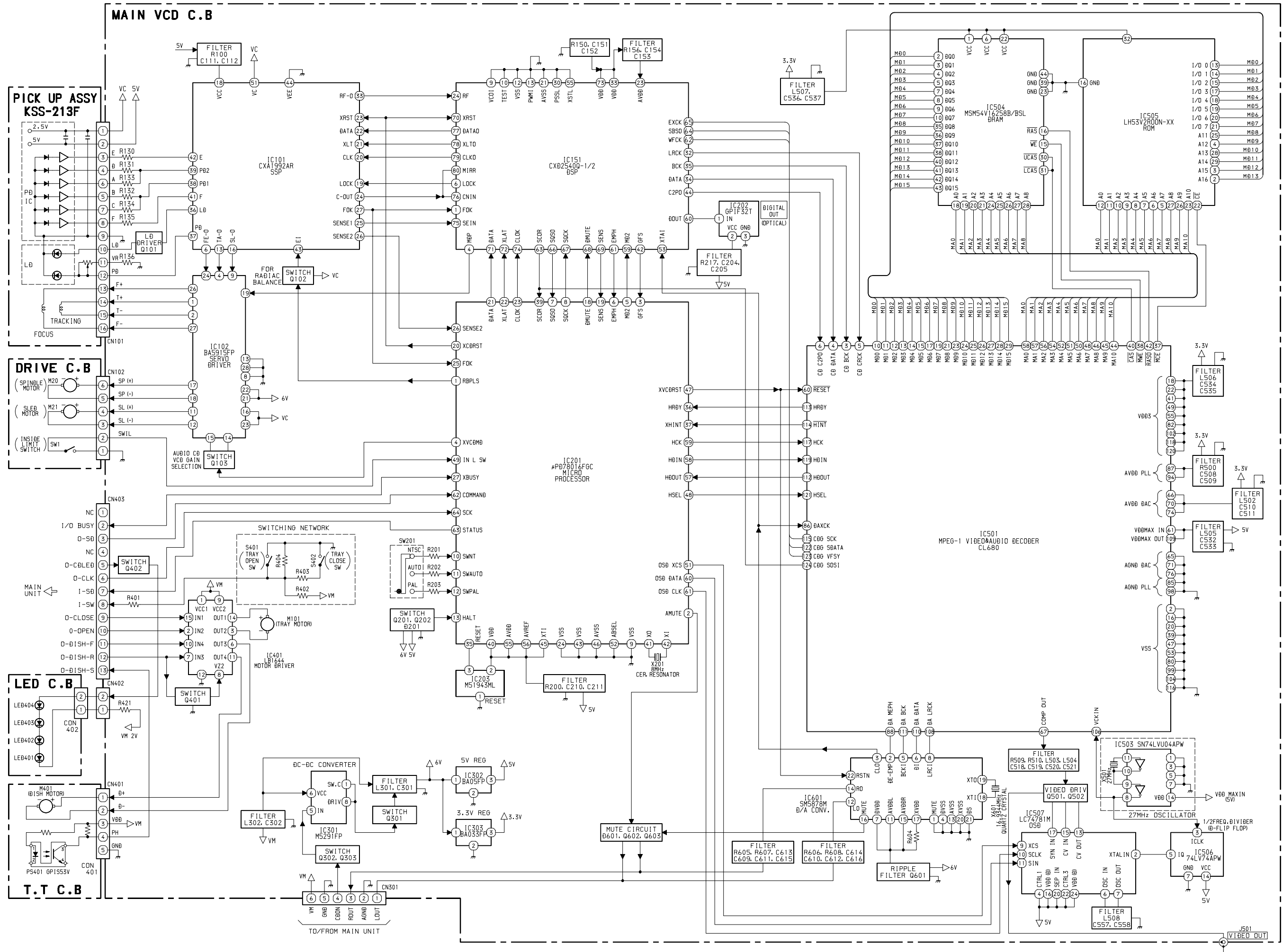


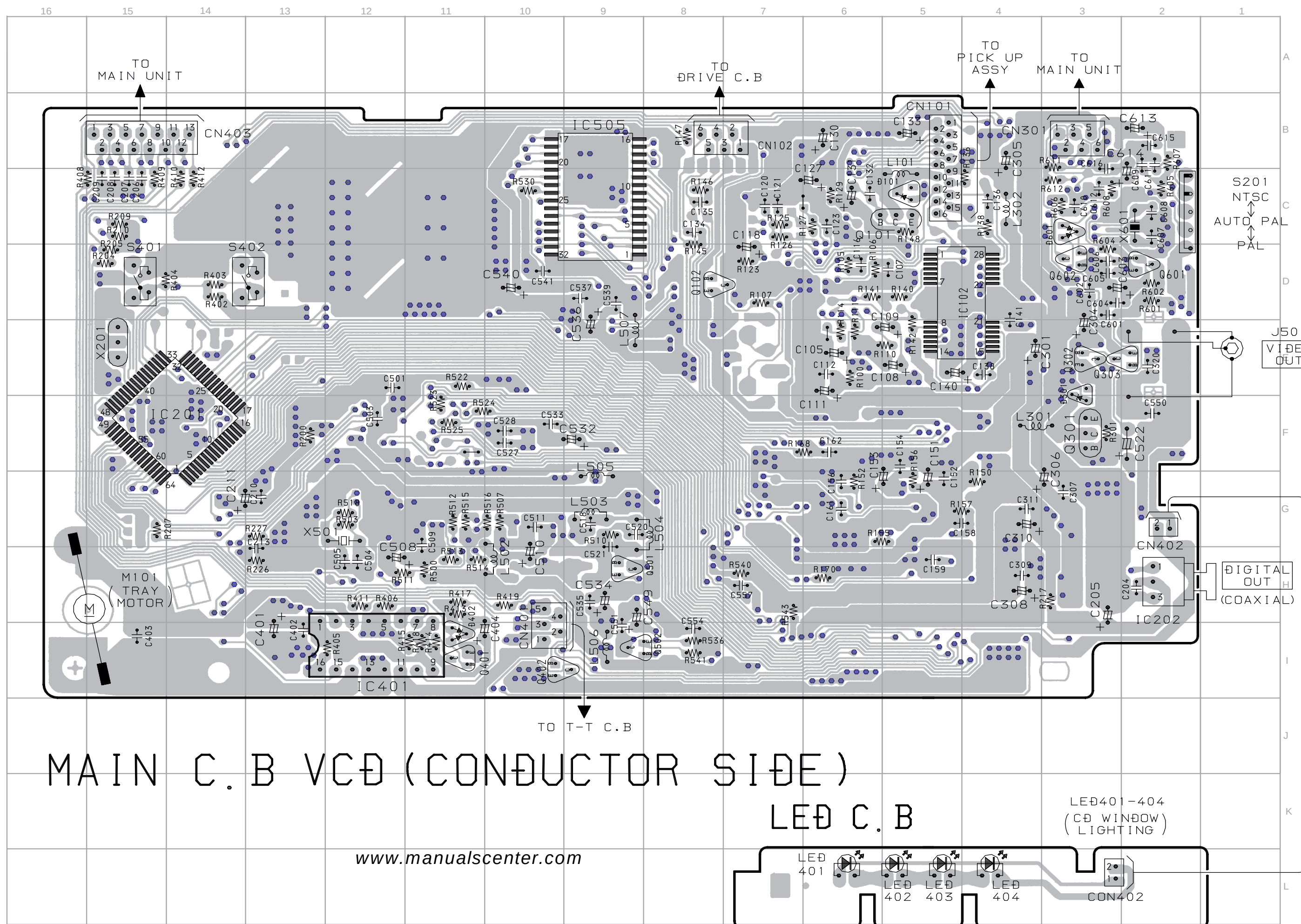
2SA1357



HN1C03F

BLOCK DIAGRAM





1 2 3 4 5 6 7

A

B

C

D

E

F

G

H

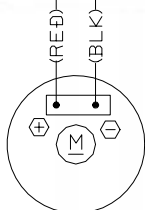
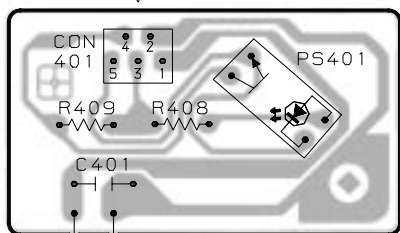
I

J

FROM
MAIN UNIT

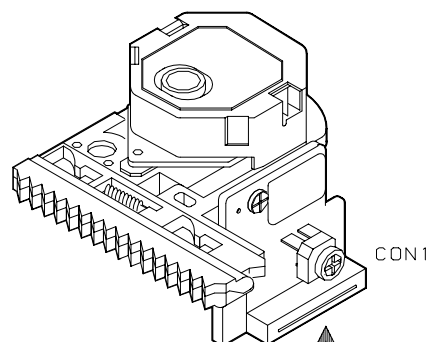
FC4

T-T C.B



M401
(TURN TABLE)
MOTOR

PICK UP ASSY



MAIN VCB C.B
CN101

DRIVE C.B

M20
(SPINDLE)
MOTOR

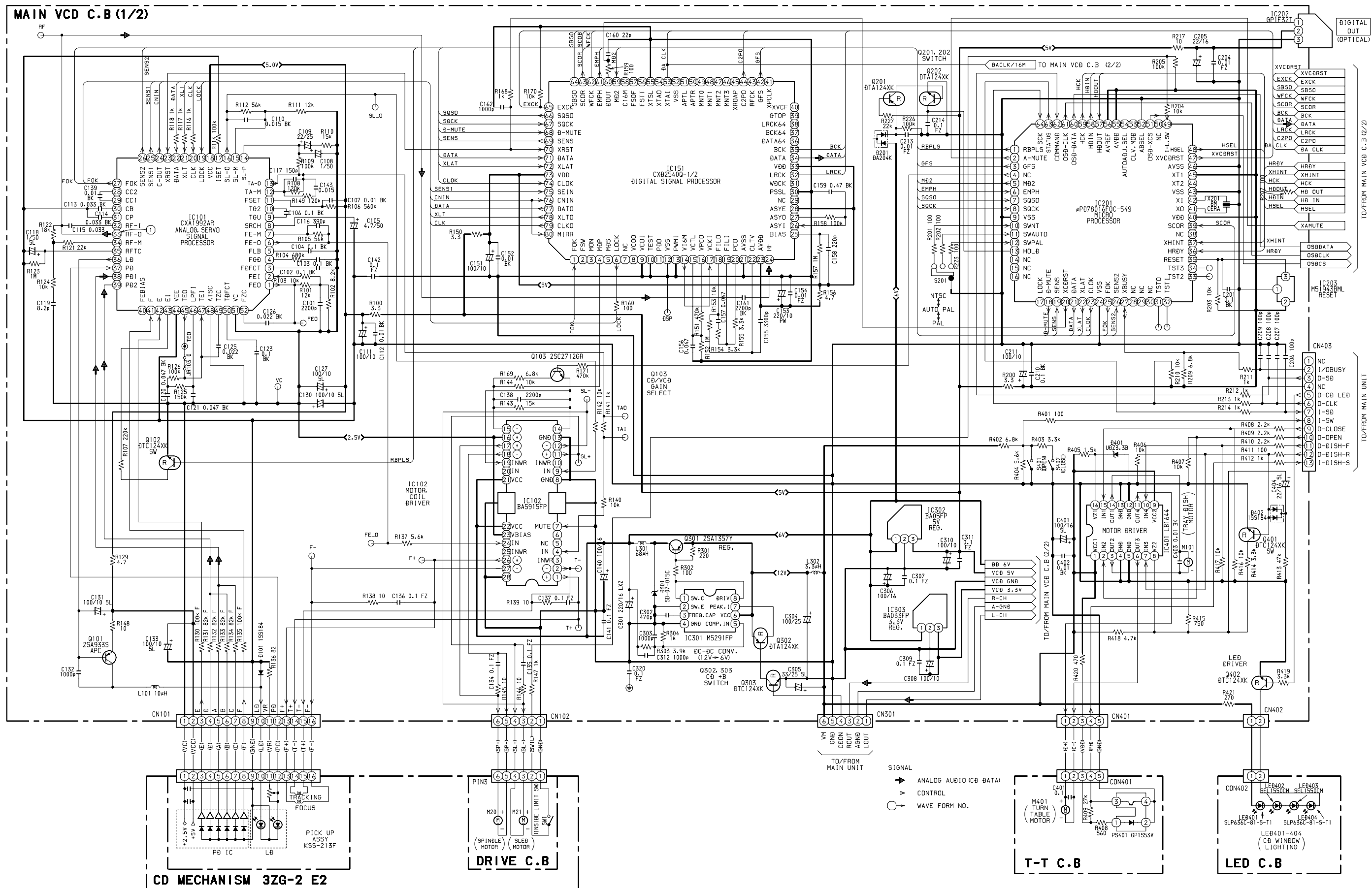
SW1
(INSIDE LIMIT)
SW

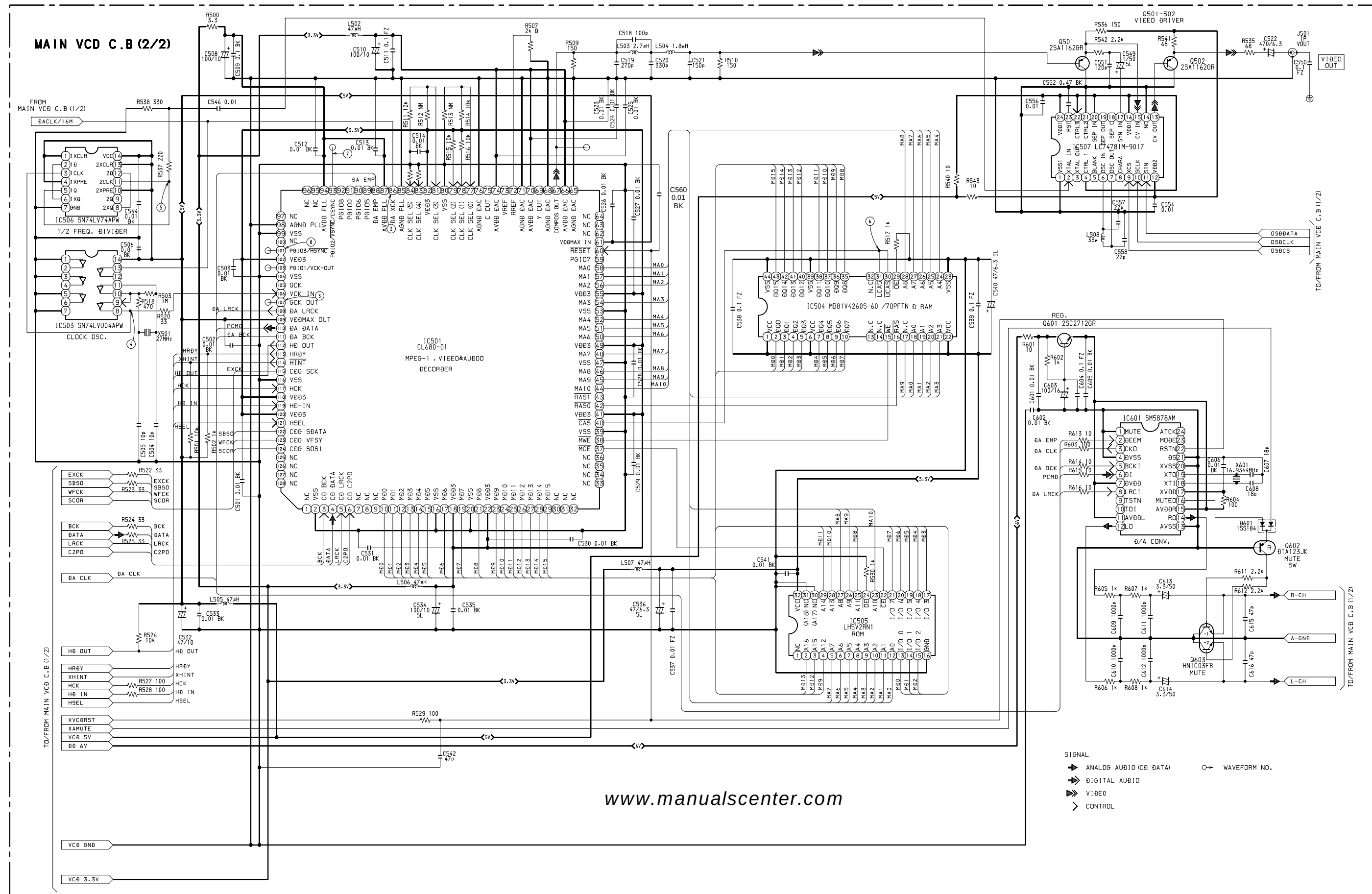
M21
(SLED)
MOTOR

PIN3

MAIN VCB C.B
CN102

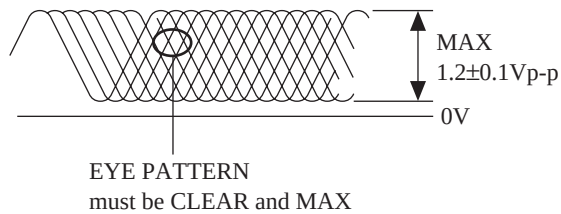
SCHEMATIC DIAGRAM-1



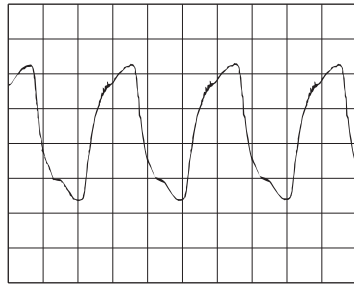


WAVE FORM

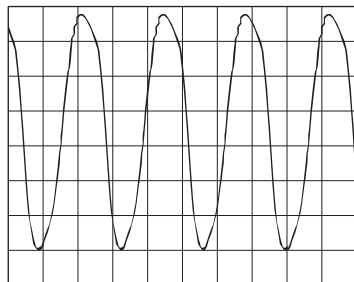
- ① IC101 Pin ③③ (RF-O) VOLT/DIV: 200mV
TIME/DIV: 0.5μS



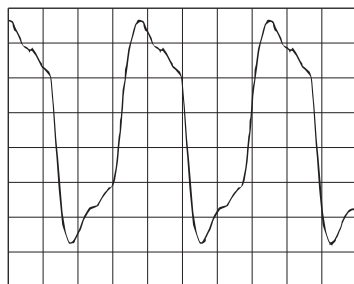
- ② IC501 Pin ⑧⑥ DA XCK 16.93MHz VOLT/DIV: 1V
TIME/DIV: 20nS



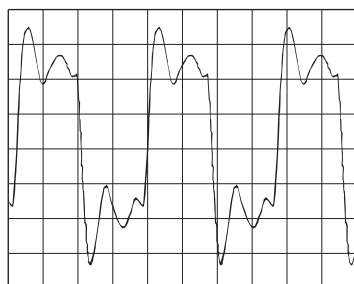
- ③ IC501 Pin ⑩⑦ GCK OUT 42.3MHz VOLT/DIV: 1V
TIME/DIV: 10nS



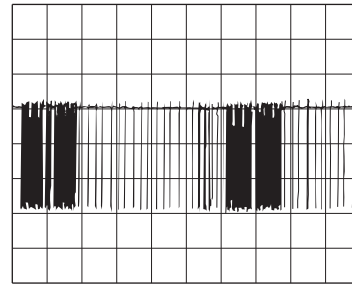
- ④ IC503 Pin ⑧ 33 VCK 27MHz±1.35kHz VOLT/DIV: 1V
TIME/DIV: 10nS



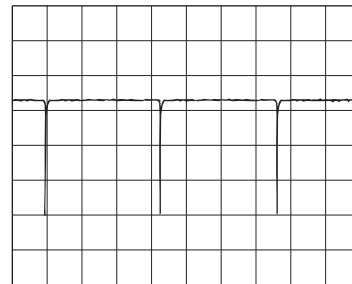
- ⑤ IC506 Pin ⑪ OSD CLK 13.5MHz±675Hz VOLT/DIV: 1V
TIME/DIV: 20nS



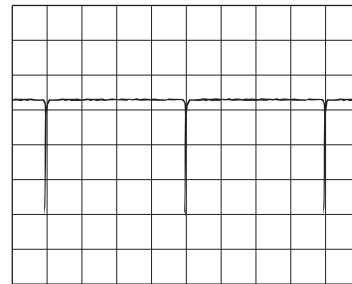
- ⑥ IC504 Pin ③① UCAS (Pin ③① LCAS) VOLT/DIV: 1V
TIME/DIV: 2μS



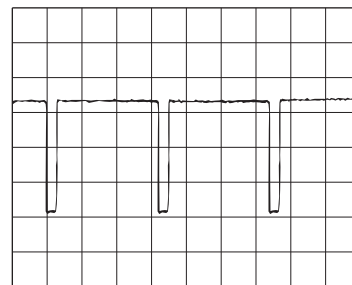
- ⑦ IC501 Pin ⑨③ VSync NTSC VOLT/DIV: 1V
TIME/DIV: 5mS



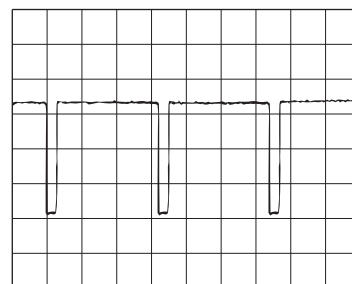
- ⑧ IC501 Pin ⑨③ VSync PAL VOLT/DIV: 1V
TIME/DIV: 5mS



- ⑧ IC501 Pin ⑩① HSync PAL VOLT/DIV: 1V
TIME/DIV: 20μS



- IC501 Pin ⑩① HSync NTSC VOLT/DIV: 1V
TIME/DIV: 20μS



IC DESCRIPTION

IC, CXA1992AR

Pin No.	Pin Name	I/O	Description
1	FEO	O	Output terminal for focus error amplifier. Internally connected to window comparator input for bias condition.
2	FEI	I	Input terminal for focus error.
3	FDFCT	I	Capacitor connection terminal for time constant used when there is defect.
4	FGD	I	This pin is connected to GND via capacitor when high frequency gain of the focus servo is attenuated.
5	FLB	I	This is a pin where the time constant is externally connected to raise the low frequency gain of the focus servo.
6	FE_O	O	Focus drive output.
7	FEM	I	Focus amplifier inverted input pin.
8	SRCH	I	This is a pin where the time constant is externally connected to generate the focus search waveform.
9	TGU	I	This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain.
10	TG2	I	This is a pin where the selection time constant is externally connected to set the tracking high frequency gain.
11	FSET	I	Pin for setting peak of the phase compensator of the focus tracking.
12	TA_M	I	Tracking amplifier inverted input pin.
13	TA_O	O	Tracking drive output.
14	SL_P	I	Sled amplifier non-inverted input pin.
15	SL_M	I	Sled amplifier inverted input pin.
16	SL_O	O	Sled drive output.
17	ISSET	I	The current which determines height of the focus search, track jump and sled kick is input with external resistance connected.
18	Vcc	I	Power supply.
19	LOCK	I	“L” setting starts sled disorder-prevention circuit. (Not pull-up resistance)
20	CLK	I	Clock input for serial data transfer from CPU. (No pull-up resistance)
21	XLT	I	Latch input from CPU. (No pull-up resistance)
22	DATA	I	Serial data input from CPU. (No pull-up resistance)
23	XRST	I	Reset system at “L” setting. (No pull-up resistance)
24	C_OUT	O	Signal output for track number counting.
25	SENS1	O	FZC, DFCT1, TZC, BALH, TGH, FOH, or ATSC is output depending on the command from CPU.
26	SENS2	O	DFCT2, MIRR, BALL, TGL or FOL is output depending on the command from CPU.
27	FOK	O	Output terminal for focus OK comparator.
28	CC2	I	Input pin where the DEFECT bottom hold output is capacitance coupled.
29	CC1	O	DEFECT bottom-hold output terminal. Internally connected to interruption comparator input.
30	CB	I	Connection terminal for DEFECT bottom-hold capacitor.
31	CP	I	Connection terminal for MIRR hold-capacitor. Anti-reverse input terminal for MIRR comparator.

Pin No.	Pin Name	I/O	Description
32	RF_I	I	Input terminal by capacity combination of RF summing amplifier.
33	RF_O	O	Output terminal of RF summing amplifier. Checkpoint of Eye pattern.
34	RF_M	I	Anti-reverse input terminal for RF summing amplifier. The gain of RF amplifier is decided by the connection resistance between RF_M and RFO terminals.
35	RFTC	I	This is a pin where the selection time constant is externally connected to control the RF level.
36	LD	O	APC amplifier output terminal.
37	PD	I	APC amplifier input terminal.
38, 39	PD1, PD2	I	RFI-V amplifier inverted input pin. These pins are connected to the A+C and B+C pins of the optical pickup, receiving by currents input.
40	FEBIAS	I/O	Bias adjustment pin of the focus error amplifier.
41, 42	F, E	I	F and EIV amplifier inverted input pins. These pins are connected to the F and E of the optical pickup, receiving by current input.
43	EI	—	Gain adjustment pin of the I-V amplifier E. (When not in use of BAL automatic adjustment)
44	VEE	—	GND connection pin.
45	TEO	O	Output terminal for tacking-error amplifier. Output E-F signal.
46	LPFI	I	BAL adjustment comparator input pin. (Input through LPF from TEO)
47	TEI	I	Input terminal for tracking error.
48	ATSC	I	Window-comparator input terminal for detecting ATSC.
49	TZC	I	Input terminal for tracking-zero cross comparator.
50	TDFCT	I	Capacitor connection pin for the time constant used when there is defect.
51	VC	O	Output terminal for DC voltage reduced to half of VCC+VEE.
52	FZC	I	Input terminal for focus-zero cross comparator.

IC, CXD2540Q

Pin No.	Pin Name	I/O	Description
1	FOK	I	Focus OK input. Used for SENS output and the servo auto sequencer.
2	FSW	O	Spindle motor output filter switching output.
3	MON	O	Spindle motor on/off control output.
4	MDP	O	Spindle motor servo control.
5	MDS	O	
6	LOCK	O	High, when sampled value of GFS at 460Hz is high. Low, when sampled value of GFS at 460Hz is low by 8 times successively.
7	NC		
8	VCOO	O	Analog EFM PLL oscillation circuit output.
9	VCOI	I	Analog EFM PLL oscillation circuit input. fLOCK=8.6436MHz.
10	TEST	I	TEST pin.
11	PDO	O	Analog EFM PLL charge pump output.
12	VSS		GND.
13	PWMI	I	Spindle motor external control input.
14	V16M	O	VCO2 oscillation output for the wide-band EFM PLL.
15	VCTL	I	VCO2 control voltage input for the wide-band EFM PLL.
16	VPCO	O	Wide-band EFM PLL charge pump output.
17	VCKI	I	VCO2 oscillation input for the wide-band EFM PLL.
18	FILO	O	Multiplier PLL (slave=digital PLL) filter output.
19	FILI	I	Multiplier PLL filter input.
20	PCO	O	Multiplier PLL charge pump output.
21	AVSS		Analog GND.
22	CLTV	I	Multiplier VCO1 control voltage input.
23	AVDD		Analog power supply (5V).
24	RF	I	EFM signal input.
25	BIAS	I	Constant current input of the asymmetry circuit.
26	ASYI	I	Asymmetry comparator voltage input.
27	ASYO	O	EFM full-swing output.
28	ASYE	I	Low: asymmetry circuit off; high: asymmetry circuit on.
29	NC		
30	PSSL	I	Audio data output mode switching input. Low: serial output; high: parallel output.
31	WDCK	O	D/A interface for 48-bit slot. Word clock f=2Fs.
32	LRCK	O	D/A interface for 48-bit slot. LR clock f=Fs.
33	VDD		Power supply (5V).
34	DA16	O	DA16 (MSB) output when PSSL=1. 48-bit slot serial data (two's complement, MSB first) when PSSL=0.
35	DA15	O	DA15 output when PSSL=1. 48-bit slot bit clock when PSSL=0.
36	DA14	O	DA14 output when PSSL=1. 64-bit slot serial data (two's complement, LSB first) when PSSL=0.
37	DA13	O	DA13 output when PSSL=1. 64-bit slot bit clock when PSSL=0.
38	DA12	O	DA12 output when PSSL=1. 64-bit slot LR clock when PSSL=0.

Pin No.	Pin Name	I/O	Description
39	DA11	O	DA11 output when PSSL=1. GTOP output when PSSL=0.
40	DA10	O	DA10 output when PSSL=1. XUGF output when PSSL=0.
41	DA09	O	DA09 output when PSSL=1. XPLCK output when PSSL=0.
42	DA08	O	DA08 output when PSSL=1. GFS output when PSSL=0.
43	DA07	O	DA07 output when PSSL=1. RFCK output when PSSL=0.
44	DA06	O	DA06 output when PSSL=1. C2PO output when PSSL=0.
45	DA05	O	DA05 output when PSSL=1. XRAOF output when PSSL=0.
46	DA04	O	DA04 output when PSSL=1. MNT3 output when PSSL=0.
47	DA03	O	DA03 output when PSSL=1. MNT2 output when PSSL=0.
48	DA02	O	DA02 output when PSSL=1. MNT1 output when PSSL=0.
49	DA01	O	DA01 output when PSSL=1. MNT0 output when PSSL=0.
50	APTR	O	Aperture compensation control output. This pin outputs a high signal when the right channel is used.
51	APTL	O	Aperture compensation control output. This pin outputs a high signal when the left channel is used.
52	VSS		GND.
53	XTAI	I	Crystal oscillation circuit input.
54	XTAO	O	Crystal oscillation circuit output.
55	XTSL	I	Crystal selector input.
56	FSTT	O	2/3 frequency divider output for Pins 53 and 54.
57	FSOF	O	1/4 frequency divider output for Pins 53 and 54.
58	C16M	O	16.9344MHz output. (V16M output in CLV-W and CAV-W modes)
59	MD2	I	Digital-out on/off control. High: on; low: off
60	DOUT	O	Digital-out output.
61	EMPH	O	Outputs a high signal when the playback disc has emphasis, and a low signal when there is no emphasis.
62	WFCK	I	WFCK (write frame clock) output.
63	SCOR	O	Outputs a high signal when either subcode sync S0 or S1 is detected.
64	SBSO	O	Sub P to W serial output.
65	EXCK	I	SBSO readout clock input.
66	SQSO	O	Sub Q 80-bit and PCM peak, level meter and internal status outputs.
67	SQCK	I	SQSO readout clock input.
68	MUTE	I	High: mute; low: release
69	SENS	—	SENS output to CPU.
70	XRST	I	System reset. Reset when low.
71	DATA	O	Serial data input from CPU.
72	XLAT	O	Latch input from CPU. Serial data is latched at the falling edge.
73	VDD		Power supply (5V).
74	CLOK	O	Serial data transfer clock input from CPU.
75	SEIN	I	SENS input from SSP.
76	CNIN	I	Track jump count signal input.

Pin No.	Pin Name	I/O	Description
77	DATO	O	Serial data output to SSP.
78	XLTO	O	Serial data latch output to SSP. Latched at the falling edge.
79	CLKO	O	Serial data transfer clock output to SSP.
80	MIRR	I	Mirror signal input. Used when the number of tracks is 128 or more for the 2N-track jump and M track move of the auto sequencer.

Notes)

- The 64-bit slot is an LSB first, two's complement output, and the 48-bit slot is an MSB first, two's complement output.
- GTOP is used to monitor the frame sync protection status. (High: sync protection window open.)
- XUGF is the negative pulse for the frame sync obtained from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived from the crystal accuracy, and has a cycle of 136μ.
- C2PO represents the data error status.
- XRAOF is generated when the 32K RAM exceeds the ±28F jitter margin.

IC, CL680

Pin No.	Pin Name	I/O	Description
1	NC	—	No connection.
2	VSS	—	GND.
3	CD BCK	I	Bit clock input from CD DSP.
4	CD DATA	I	Data input from CD DSP.
5	CD LRCK	I	LRCK input from CD DSP.
6	CD C2PO	I	C2 pointer input from CD DSP.
7-9	NC	—	No connection.
10-15	MD0-MD5	I/O	DRAM/ROM interface. (DATA)
16	VSS	—	Ground.
17	MD6	I/O	DRAM/ROM interface. (DATA)
18	VDD3	—	Power supply 3.3V.
19	MD7	I/O	DRAM/ROM interface. (DATA)
20	VSS	—	Ground.
21	MD8	I/O	DRAM/ROM interface. (DATA)
22	VDD3	—	Power supply 3.3V.
23-29	MD9-MD15	I/O	DRAM/ROM interface. (DATA)
30-36	NC	—	No connection.
37	$\overline{\text{MCE}}$	—	ROM chip enable.
38	$\overline{\text{MWE}}$	O	DRAM write enable.
39	VSS	—	Ground.
40	$\overline{\text{CAS}}$	O	DRAM/ROM interface.
41	VDD3	—	Power supply 3.3V.
42	$\overline{\text{RASO}}$	O	DRAM/ROM interface.
43	$\overline{\text{RASI}}$	O	
44-46	MA10-MA8	O	DRAM/ROM interface. (Address)
47	VSS	—	Ground.
48	MA7	O	DRAM/ROM interface. (Address)
49	VDD3	—	Power supply 3.3V.
50-52	MA6-MA4	O	DRAM/ROM interface. (Address)
53	VSS	—	Ground.
54	MA3	O	DRAM/ROM interface. (Address)
55	VDD3	—	Power supply 3.3V.
56-58	MA2-MA0	O	DRAM/ROM interface. (Address)
59	PGIO7	I/O	Programmable I/O.
60	$\overline{\text{RESET}}$	I	Reset input.
61	VDD MAX IN	—	Power supply - VDDMAX. (5.0V)
62-64	NC	—	No connection.
65	AGND DAC	—	Analog ground.
66	A DAC	—	Analog power supply (DAC) : 3.3V.
67	COMP OUT	O	Composite out.
68	AGND DAC	—	Analog ground.

Pin No.	Pin Name	I/O	Description
69	Y OUT	O	Video signal “Y” OUT.
70	AVDD DAC	—	Analog power supply (DAC) 3.3V.
71	AGND DAC	—	Analog ground.
72	R REF	I	Reference resistor input.
73	V REF	I	Voltage reference input.
74	AVDD DAC	—	Analog power supply (DAC) : 3.3V.
75	C OUT	O	Video signal “C” out.
76	AGND DAC	—	Analog ground.
77-79	CLK SEL0-2	I	Clock selection input.
80	VSS	—	Ground.
81	CLK SEL3	I	Clock selection input.
82	VDD3	—	Power supply 3.3V.
83, 84	CLK SEL4, 5	I	Clock selection input.
85	AGND PLL	—	Analog ground.
86	DA XCK	I	DA XCK (16.933MHz) input.
87	AVDD PLL	—	Analog power supply 3.3V.
88	DA EMP	O	DAC-emphasis output.
89, 90	PGIO5, O6	I/O	Programmable I/O.
91	PGIO0	I/O	
92	PGIO8	I/O	
93	$\overline{\text{VSYNC/CSYNC}}$	O	$\overline{\text{VSYNC/CSYNC}}$ output.
94	AVDD PLL	—	Analog power supply (PLL) 3.3V.
95	VID_DAC_CK	O	Video DAC clock.
96	PROC_CK	O	Processor clock.
97	AUD_XCK	O	Audio XCK.
98	AGND PLL	—	Analog ground.
99	VSS	—	Ground.
100	NC	—	No connection.
101	$\overline{\text{HSYNC}}$	O	$\overline{\text{HSYNC}}$ output.
102	VDD3	—	Power supply 3.3V.
103	VCK OUT	O	VCK out.
104	VSS	—	Ground.
105	GCK	I	Global clock signal input. (42.3MHz)
106	VCK	I	Video clock signal input. (27.0MHz)
107	GCK OUT	O	Global clock signal output. (27.0MHz)
108	DA LRCK	O	DAC-LRCK output.
109	VDD MAX OUT	—	Power supply (VDD MAX) : 5.0V.
110	DA DATA	O	DAC-PCM data output.
111	DA BCK	O	DAC-BIT clock output.
112	HD OUT	O	Micon interface. (Data out)
113	HRDY	O	Micon interface. (Host ready)

Pin No.	Pin Name	I/O	Description
114	$\overline{\text{HINT}}$	O	Micon interface. (Host interrupt)
115	CDG SCK	I	CD-G serial clock input.
116	VSS	—	Ground.
117	HCK	I	Micon interface. (Host clock)
118	VDD3	—	Power supply 3.3V.
119	HD IN	I	Micon interface. (Host data in)
120	VDD3	—	Power supply 3.3V.
121	HSEL	I	Micon interface. (Host select in)
122	CDG DATA	I	CD-G data input.
123	CDG VFSY	I	CD-G VFSY input.
124	CDG SOSI	I	CD-G SOSI input.
125	DSP-XCK	O	DSP-XCK output.
126-128	NC	—	No connection.

IC, LC74781M

Pin No.	Pin Name	I/O	Description
1	VSS1	—	GND connection terminal. (Digital ground terminal).
2	Xtal IN	I	External X'tal and capacitor for internal sync generator, or the external clock are connected to this terminal. (2fsc or 4fsc).
3	Xtal OUT	O	
4	CTRL1	I	Either the external clock input mode or the X'tal generator mode is selected by this selector terminal. L: X'tal generator mode, H: External clock input.
5	BLANK	O	Blank signal (character and the green ORed signal) is output from this terminal. (MODE 0: composite sync signal is output at H.) When reset ($\overline{\text{RST}}$ terminal = L), the X'tal clock signal is output. (It is not output when reset by the reset command).
6	OSC IN	I	External coil and capacitor for the character output dot clock generator are connected to this terminal.
7	OSC OUT	O	
8	CHARA	O	The character signal is output from this terminal. (MOD 0: when H, the external sync signal identification signal is output from this terminal. This output signal tells whether the external sync signal is present or not. When external sync signal is present, H is output.) When reset ($\overline{\text{RST}}$ terminal = L), the dot clock signal (LC oscillator) is output. (It is not output when reset by the reset command).
9	$\overline{\text{CS}}$	I	Enable signal for the serial data input is input to this terminal. The serial data input is enabled at L. Pull-up resistor is built-in. (Hysteresis input).
10	SCLK	I	Clock of the serial data input is input to this terminal. Pull-up resistor is built-in. (Hysteresis input).
11	SIN	I	Serial data input terminal. Pull-up resistor is built-in. (Hysteresis input).
12	VDD2	—	Power supply for the composite video signal level adjustment. (Analog power supply).
13	CV OUT	O	Composite video signal output terminal.
14	NC	—	Connected to GND or not connected.
15	CV IN	I	Composite video signal input terminal.
16	VDD1	—	Power supply (+5V digital power supply).
17	SYN IN	I	Video signal for the internal sync separator circuit is input to this terminal. (When the internal sync separator circuit is not used, the horizontal sync signal or composite sync signal is input to this terminal).
18	SEP C	—	Internal sync separator circuit bias voltage monitoring terminal.
19	SEP OUT	O	The composite sync output signal of the internal sync separator circuit is output from this terminal. (H: MOD 1. H: during internal sync mode. L: during external sync mode.) (When internal sync separator circuit is not used, the SYN IN input signal is output from this terminal).
20	SEP IN	I	The output signal of the SEP OUT terminal is integrated so that the vertical sync signal is input to this terminal. An integrator circuit must be connected between the SEP OUT terminal and this terminal. When this terminal is not used, it must be connected to VDD1.
21	CTRL2	I	When selecting any of the NTSC or PAL or PAL-M or PAL-N system, the pin setting has priority. When L, the NTSC system is selected after resetting. Selection of either NTSC or PAL or PAL-M or PAL-N system by the command becomes effective. H: PAL-M system.

Pin No.	Pin Name	I/O	Description
22	CTRL3	I	Controls whether or not to input the $\overline{\text{VSYNC}}$ signal to the SEPIN input. L: to input the $\overline{\text{VSYNC}}$ signal. H: not to input the $\overline{\text{VSYNC}}$ signal.
23	$\overline{\text{RST}}$	I	System reset input terminal. Pull-up resistor is built-in. (Hysteresis input).
24	VDD1	—	Power supply. (+5V digital power supply).

IC, μ PD78016FGC

Pin No.	Pin Name	I/O	Description
1	RBPLS	O	RADIAL BALANCE PLUS.
2	AMUTE	O	AUDIO ANALOG MUTE (H=MUTE ON).
3	GFS	I	GFS.
4	XVCDMD	I	AUDIO/VIDEO CD MODE (L=VCD=SPINDLE GAIN UP).
5	MD2	O	DOUT MUTE CONT.
6	EMPH	I	EMPHASIS.
7	SQSO	I	SQDATA FROM CD.
8	SQCK	O	SQCLK TO CD.
9	VSS	—	GND.
10	SWNT	I	SW TV OUT MODE (L=NTSC).
11	SWAUTO	I	SW TV OUT MODE (L=NTSC/PAL AUTO).
12	SWPAL	I	SW TV OUT MODE (L=PAL).
13	EMERG	I	POWER EMERGENCY STOP (L*3sec=STOP).
14	NC	—	Nou used.
15	LPCSEL	I	“LPC ON/OFF (H=ON, NORMAL)”.
16	NC	—	Nou used.
17	LOCK	O	GFS (FRAME SYNC) LOCK (NO USE=H).
18	DMUTE	O	DIGITAL DATA OUT MUTE.
19	SENS	I	DSP SENS1 FROM CD.
20	XCDRST	O	CD RESET.
21	DATA	O	DATA TO CD.
22	XLAT	O	XLT TO CD.
23	CLOK	O	CLK TO CD.
24	VSS	—	GND.
25	FOK	I	FOCUS OK.
26	SENS2	I	SSP SENS2 FROM CD.
27	XBUSY	I/O	READY/BUSY I/O TO HOST OD.
28	NC	—	Nou used.
29	NC	—	
30	NC	—	
31	TST0	I/O	CHECK LAND.
32	TST1	I/O	
33	TST2	I/O	
34	TST3	I/O	
35	RESET	I	RESET.
36	HRDY	I	HRDY FROM CL680.
37	XHINT	I	HINT FROM CL680.
38	NC	—	Nou used.
39	SCOR	I	SCOR FROM CD.
40	VDD	—	5.0VDD.
41	XO	O	8.0MHz CERAMLOCK.

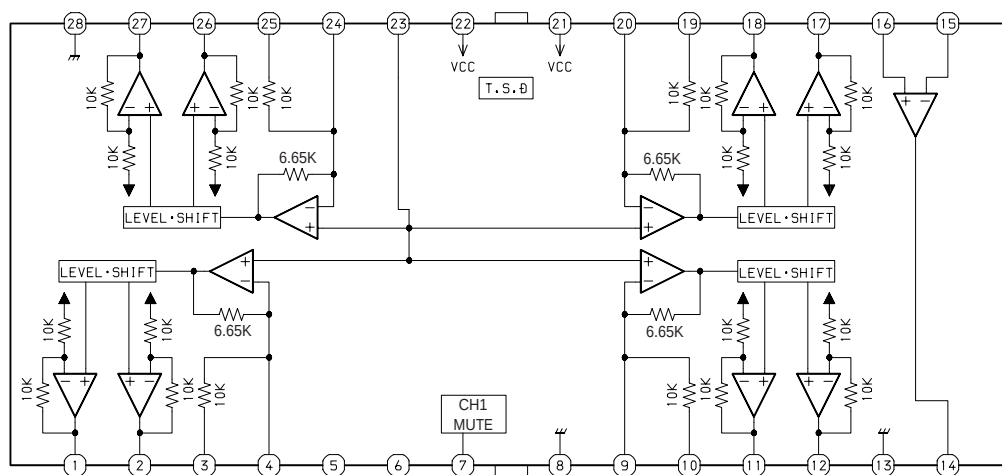
Pin No.	Pin Name	I/O	Description
42	XI	I	8.0MHz CERALOCK.
43	VSS	—	GND.
44	XT2	—	Nou used.
45	XT1	I	5.0VDD.
46	AVSS	—	GND.
47	XMPGRST	O	MPEG BLOCK IC RESET.
48	HSEL	O	ADDRESS/DATA SEL TO CL680.
49	INLSW	I	INSIDE LIMIT SW .
50	NC	—	Nou used.
51	OSDXCS	O	OSD CHIP SELECT.
52	ABSEL	I	CXA1992A/B SELECT (L=CXA1992A).
53	CLVSEL	I	CLV MODE SELECT (H=CLV-N).
54	AADSEL	I	AUTO ADJUST SELECT (H=AUTO ON).
55	AVDD	—	5.0VDD.
56	AVREF	—	
57	HDOUT	I	HD-OUT FROM CL680.
58	HDIN	O	HD-IN TO CL680.
59	HCK	O	HCK TO CL680.
60	OSDDATA	O	OSD DATA.
61	OSDCLK	O	OSD CLOCK.
62	COMMAND	I	COMMAND FROM HOST .
63	STATUS	O	STATUS TO HOST.
64	SCK	I	SCK FROM HOST.

IC, SM5878M

Pin No.	Pin Name	I/O	Description
1	MUTE	I	MODE = H: Soft mute ON/OFF terminal. (Mute at H). MODE = L: Attenuator level DOWN/UP terminal. (DOWN at H).
2	DEEM	I	De-emphasis ON/OFF terminal. (De-emphasis ON at H).
3	CKO	O	Oscillator clock output. (16.9344 MHz).
4	DVSS	—	Digital VSS terminal.
5	BCKI	I	Bit clock input terminal.
6	DI	I	Serial data input terminal.
7	DVDD	—	Digital VDD terminal.
8	LRCI	I	Sample rate clock (fs) input terminal. (H = L ch/L = R ch).
9	TSTN	I	Test input. ("H" or open during normal operation)
10	TO1	O	Test output 1. (Normally low level output).
11	AVDDL	—	Analog VDD terminal. (For L ch).
12	LO	O	Left channel analog output terminal.
13	AVSS	—	Analog VSS terminal.
14	RO	O	Right channel analog output terminal.
15	AVDDR	—	Analog VDD terminal. (For R ch).
16	MUTEO	O	Infinity zero detection output.
17	XVDD	—	X'tal system VDD terminal.
18	XTI	I	X'tal oscillator terminal. (Or external clock input terminal of 16.9344 MHz).
19	XTO	O	X'tal oscillator terminal.
20	XVSS	—	X'tal system VSS terminal.
21	DS	I	Double-speed/normal playback selection. (Double-speed at H).
22	RSTN	I	Reset terminal. (Reset at L).
23	MODE	I	Soft mute/Attenuator mode selection. (Soft mute at H).
24	ATCK	I	Attenuator level setup clock (Ignored when MODE = H).

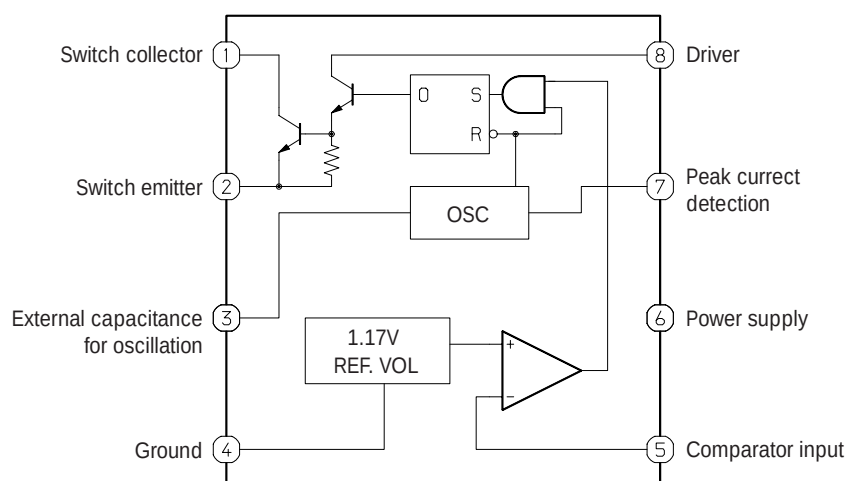
IC BLOCK DIAGRAM

IC, BA5915FP

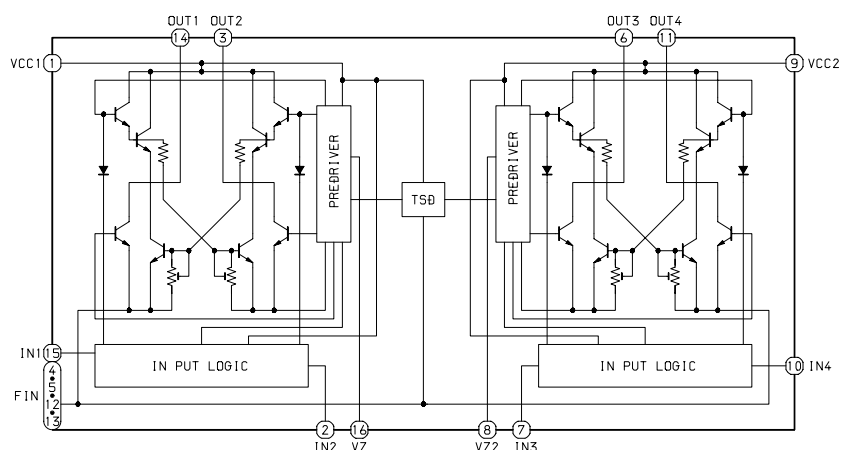


T.S.D: Thermal shut-down
Resistors are in units of Ω .

IC, M5291FP



IC, LB1644



TRUTH TABLE

IN1	IN2	OUT1	OUT2	IN3	IN4	OUT3	OUT4
0	0	L	L	0	0	L	L
1	0	H	L	1	0	H	L
0	1	L	H	0	1	L	H
1	1	L	L	1	1	L	L

INPUT				OUTPUT				MODE	
IN1	IN2	IN3	IN4	OUT1	OUT2	OUT3	OUT4	M1	M2
0	0	0	0	L	L	L	L	BRAKE	BRAKE
1	0	0	0	H	L	L	L	FF/REW	BRAKE
0	1	1	1	L	H	L	L	REW/FF	BRAKE
1	1	0	0	L	L	H	L	BRAKE	FF/REW
0	0	1	1	L	L	L	H	BRAKE	REW/FF
1	1	1	1	L	L	L	L	BRAKE	BRAKE

TEST MODE

1. How to Activate CD Test Mode

Insert the AC plug while pressing the function CD button.
All FL display tubes will light up, and the test mode will be activated.
2. How to Cancel CD Test Mode

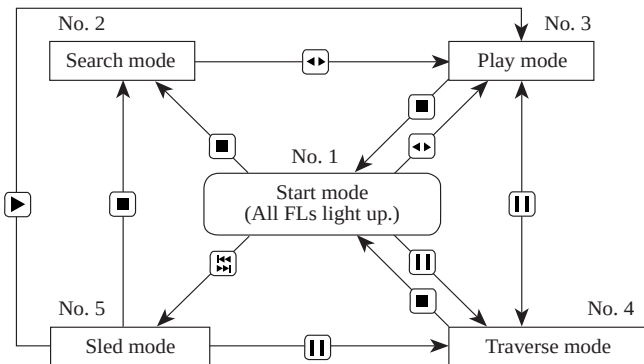
Either one of the following operations will cancel the CD test mode.
 - Press the function button.
 - Press the power switch button. (except CD function button)
 - Disconnect the AC plug
3. CD Test Mode Functions

When test mode is activated, the following mode functions from No.1 to No.5 can be used by pressing the operation keys.

Mode/No.	Operation	FL display	Operation	Contents
Start mode No.1	Activation	TEST00 00 00 Flashes repeatedly	- Test mode is activated. - CD block power is ON.	Test mode
Search mode No.2	■ key		- Continual focus search (The pickup lens repeats the full-swing up-down motion.) * Avoid continual searches that last for more than 10 minutes. * NOTE 1	FOCUS SERVO - Check focus search waveform - Check focus error waveform (FOK/FZC are not monitored in the search mode)
Play mode No.3	◀▶ key		- Normal playback - Focus search is continued if TOC cannot be read. * NOTE 1	FOCUS SERVO/TRACKING SERVO CLV SERVO/SLED SERVO Check FOK/FZC
Traverse mode No.4	key		- During normal disc playback - Press once; tracking servo OFF - Press twice; tracking servo ON * NOTE 2	TRACKING SERVO ON/OFF Tracking balance (traverse) check
Sled mode No.5	⏮ key ⏭ key	All lamps light	- Pickup moves to the outermost track - Pickup moves to the innermost track * NOTE 3 (During playback, machine operates normally.)	SLED SERVO Check SLED mechanism operation

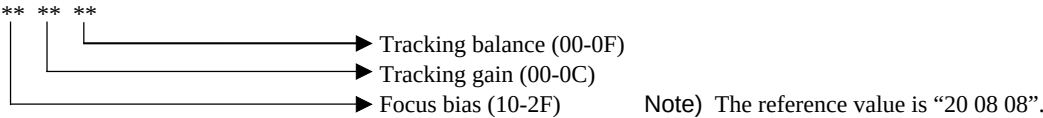
- * NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.
- * NOTE 2: Do not press the ⏮ or ⏭ keys when the machine is in the || status is active. If they are pressed, playback will not be possible after the || status has been canceled. If the ⏮ or ⏭ keys are pressed in the || status, press the ■ key and return to the start mode (No.1).
- * NOTE 3: When pressing the ⏮ or ⏭ keys, take care to avoid damage to the gears. Because the sled motor is activated when the ⏮ or ⏭ keys are pressed, even when the pick-up is at the outermost or innermost track.

4. Operation Outline
- The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.



If the DISC DIRECT PLAY button is pressed, the machine performs the same operation as the PLAY button is pressed as shown. If the tray is opened by pressing OPEN/CLOSE button during Play mode or Traverse mode, the machine returns to the Start mode.

5. How to check the Automatic Adjustment Values
- The automatic adjustment values can be checked by pressing the square (■) button.
FL display (displayed in hexadecimal values)



This exploded view diagram illustrates the assembly of a CD player. The components are numbered 1 through 28, with some parts labeled with letters A, B, C, and D. The diagram shows the following parts and their assembly sequence:

- CHAS, MECHA**: The main chassis/mechanism housing.
- HLDR, MECHA**: The holder/mechanism housing.
- P.C.B**: Printed Circuit Board.
- 3ZG-2 E1**: A specific component, likely a motor or actuator.
- CUSH CD A**: A cushioning component for the CD.

The assembly sequence is indicated by the numbers and letters:

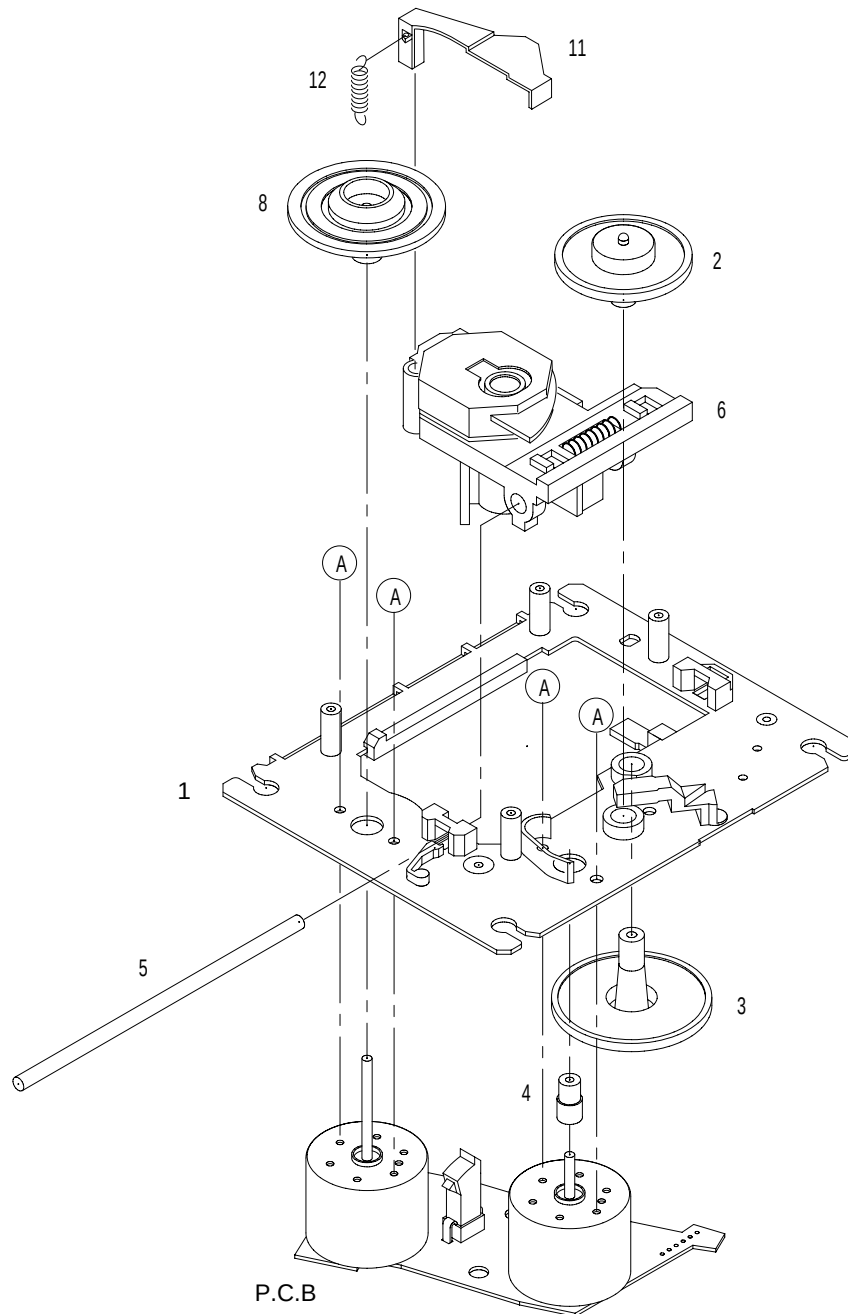
- 1**: A screw used to secure the **CHAS, MECHA** housing.
- 2**: A screw used to secure the **HLDR, MECHA** housing.
- 3**: A screw used to secure the **P.C.B**.
- 4**: A gear or pulley component.
- 5**: A screw used to secure the **3ZG-2 E1** component.
- 6**: A circular component, likely a lens or mirror.
- 7**: A circular component, likely a lens or mirror.
- 8**: A small component, likely a spring or pin.
- 9**: A large, curved component, likely a CD tray or cover.
- 10**: A small component, likely a spring or pin.
- 11**: A large, curved component, likely a CD tray or cover.
- 12**: A large, curved component, likely a CD tray or cover.
- 13**: A small component, likely a spring or pin.
- 14**: A small component, likely a spring or pin.
- 15**: A small component, likely a spring or pin.
- 16**: A small component, likely a spring or pin.
- 17**: A circular component, likely a lens or mirror.
- 18**: A small component, likely a spring or pin.
- 19**: A circular component, likely a lens or mirror.
- 20**: A circular component, likely a lens or mirror.
- 21**: A circular component, likely a lens or mirror.
- 22**: A circular component, likely a lens or mirror.
- 23**: A small component, likely a spring or pin.
- 24**: A small component, likely a spring or pin.
- 25**: A small component, likely a spring or pin.
- 26**: A small component, likely a spring or pin.
- 27**: A small component, likely a spring or pin.
- 28**: A small component, likely a spring or pin.

MECHANICAL PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION	REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	84-ZG1-239-210		PULLY,WORM N	21	84-ZG1-207-010		PULLEY,RELAY
2	84-ZG1-267-010		PULLEY,LOAD MO 8	22	84-ZG1-221-010		GEAR,MAIN TT
3	81-ZG1-239-010		S-SCREW,TT	23	84-ZG1-238-010		GEAR,WORM N
4	81-ZG1-291-110		GEAR,TRAY RELAY NO3	24	84-ZG1-224-010		LEVER,TT
5	81-ZG1-271-010		S-SCREW MECH REAR	25	84-ZG1-225-010		BELT,SQ1.0-63.3
6	81-ZG1-277-310		HLDR,MAGNET N	26	83-ZG3-602-010		RING,MAG
7	81-ZG1-255-110		PLATE,MAGNET MK2	27	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
8	83-ZG3-213-010		LVR,SW	28	84-ZG1-248-010		SPR-C,WORM
9	84-ZG1-003-310		TRAY,NO2-B	A	87-067-703-010		TAPPING SCREW, BVT2+3-10
10	87-045-364-010		MOTOR(BCH3B14)	B	87-251-070-410		U+2.6-3
11	84-ZG1-005-210		TURNTABLE,NO1(*)	C	87-342-036-210		UT2+2-8
12	84-ZG1-011-010		REFLECTOR,CD	D	87-067-981-010		BVT2+3-6 BLK
13	84-ZG1-259-010		SPR-P,WORM				
14	84-ZG1-208-210		LEVER,CAM				
15	84-ZG1-209-010		BELT,SQ1.8-117.7				
16	84-ZG1-211-010		SPR-E CAM S				
17	84-ZG1-215-410		GEAR,MAIN CAM BLU				
18	84-ZG1-216-310		SLIDE,MECHA CAM YEL				
19	84-ZG1-205-110		GEAR,TRAY				
20	84-ZG1-206-110		GEAR,RELAY				

CD MECHANISM EXPLODED VIEW 1/1 (3ZG-2 E1)



CD MECHANISM PARTS LIST 1/1 (3ZG-2 E1)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-243-110		CHAS ASSY,SHT
2	83-ZG2-235-010		GEAR,A3
3	83-ZG2-205-210		GEAR,B
4	83-ZG2-236-010		GEAR MOTOR 3
5	83-ZG2-240-010		SHAFT,SLIDE 3
6	87-A90-836-010		PICKUP,KSS-213F
8	83-ZG2-233-010		TURN TABLE,A5
11	83-ZG2-245-110		LEVER,SHUTTER
12	83-ZG2-250-010		SPR-E,SHT 2
A	87-261-032-210		SCREW V+2-3

USE MODEL LIST

CX-NAK572
CX-NK270
CX-NK290
CX-NK370
CX-NK570
CX-NK765
CX-NK770
CX-NK970
DX-SNKH100

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
G-1	—
G-2	—
G-3	—

アイワ株式会社
AIWA CO.,LTD.

912162

Tokyo Japan